

# CONCRETE



OUR 52ND YEAR  
Serving the Concrete Industries

AUGUST 1956



**LITH-I-BLOCK'S MODERN FEATURES  
MEAN MORE HIGH QUALITY  
PRODUCTION AT LOWEST COST**

**ROTA-POSED® AGITATION** — Interlocking fingers on three rotating shafts fill mold in a fraction of former time.

**MICRO-JUSTABLE® VIBRATION** — Calibrated weights adjustable to any vibration intensity desired.

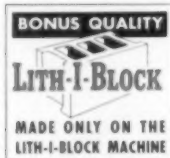
**HYDRAULIC POWER PACKAGE** — 12.5% more power than used with other hydraulic block machines.

**GUIDED PALLET SUPPORT AND STRIPPER** — Extra heavy shafts guide vertical travel for perfect alignment.

**4-POINT HEIGHT CONTROL** — Built-in, positive — on every Lith-I-Block Machine, at no extra cost.

**QUICK CHANGE MOLD BOX** — Change over to another size block in twenty minutes, or less.

**FRONT PALLET RETURN** — One man operation with optional automatic front pallet return, right or left hand models.

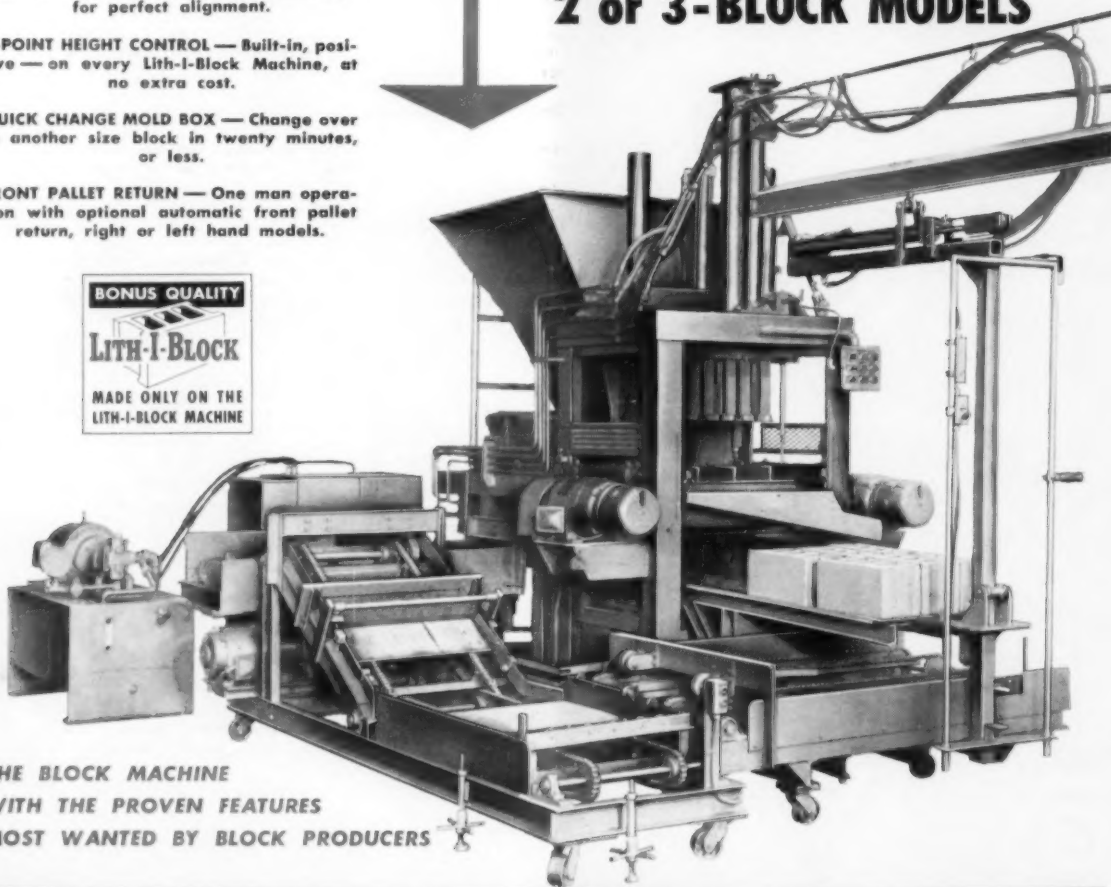


**THE BLOCK MACHINE  
WITH THE PROVEN FEATURES  
MOST WANTED BY BLOCK PRODUCERS**

# PICK THE **LITH-I-BLOCK MACHINE**

**THAT'S BEST FOR YOU**

**YOUR CHOICE OF  
HYDRAULIC or AIR POWER  
IN EITHER  
2 or 3-BLOCK MODELS**



SALES AND SERVICE THE WORLD OVER  
**LITH-I-BAR COMPANY**  
HOLLAND • MICHIGAN

ONE PIECE OF EQUIPMENT OR A COMPLETE PLANT LAYOUT

LITH-I-BAR CO.

HOLLAND, MICH.

Send me latest bulletins on Lith-I-Block Machine.

NAME \_\_\_\_\_ TITLE \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY & STATE \_\_\_\_\_

AUGUST, 1956

# CONCRETE

Vol. 64, No. 8 • EST. 1904 • PUBLISHED MONTHLY BY CONCRETE PUBLISHING CORP. • 400 W. MADISON ST., CHICAGO 6, ILL. • Central 6-3822

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**BPA**

## TAKE PROFITS!

RINSON Fork Trucks are designed to pay their own way by reducing time and labor costs. And they do it takes performance to build reputation . . . that's why RINSON is acknowledged as a pace-setter in the materials handling business. RINSON Fork Lifts incorporate every needed feature for maximum efficiency and versatility in construction materials handling.

Prices start as low as \$3665.



RINSON offers big-lift capacity with little-truck maneuverability. Even on tricky ramps or in tight quarters, RINSON trucks are easy to handle and comfortable to operate. Semi-rigid framing gives unbeatable performance over curbs and obstacles . . . without loss of wheel traction. NF 40 and 60 models are equipped with 4-wheel brakes and interchangeable wheels.



There are five standard "towable" RINSON models, each specially and ruggedly built to serve today's requirements for heavy construction materials handling. Custom engineered models and four-wheel-drive trucks can be built to order.

## You Can Take It With You IF IT'S A RINSON FORK TRUCK



### BIG NEW FEATURES MEAN BIG NEW SAVINGS

You can take it with you . . . if it's a RINSON Fork Lift Truck! Just hook up with the built-in towing attachment. In less than five minutes you're ready to roll. You cruise easily at highway truck speeds. RINSON'S steering axle, fold-away forks, tie-in braking and lights are all designed for compactness and safety on almost any road.

Rinson saves costly man hours . . . A few minutes after you arrive at the job site your RINSON is ready for a real day's work. And boy . . . what a giant-sized handling job it will do . . . loading, unloading, maneuvering and elevating jobs that would normally require five to eight times as many man hours.

Inside or out . . . At your plant or any location, RINSON offers features of versatility and dependability that cannot be matched anywhere. Equally at ease on paved surfaces or rough ground, your RINSON is truly a "trucker's truck" . . . designed and built by men who know the problems of construction materials handling.

Low cost operation and maintenance . . . It's built right in your RINSON. All standard towing models employ Ford Truck parts throughout. This marriage of easily obtainable parts to your new RINSON is just another of the many reasons why masonry contractors and materials-handling men in block yards and concrete plants everywhere are recommending that you . . .

## TEST RINSON . . . YOU'LL BUY RINSON

RINSON IS THE ORIGINAL TOWABLE FORK TRUCK

# RINSON

FORK LIFT TRUCKS



C. Rinkin & H. Olson, Rinson Fork Lift Trucks  
725 E. Huntington Drive, Monrovia 4, Calif.

Send free illustrated brochure on RINSON Fork Lift Trucks.

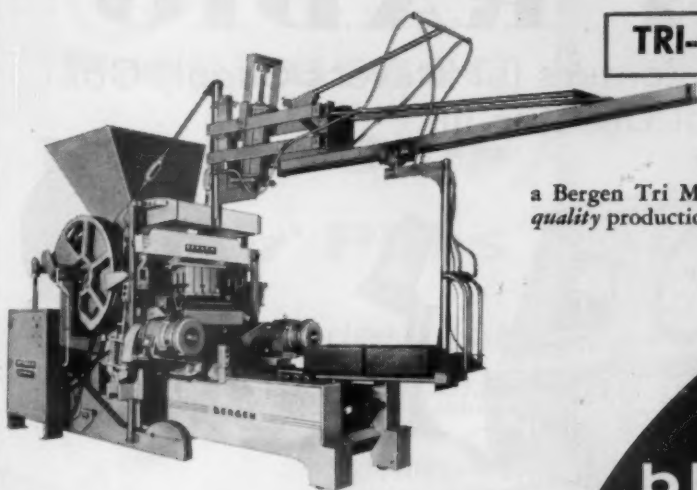
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COMPANY.....

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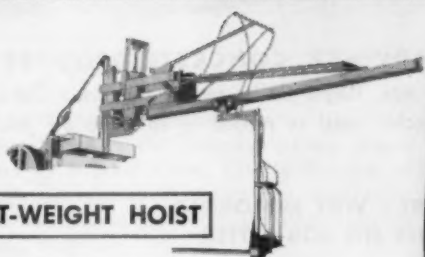
CITY.....STATE.....





## TRI-MATIC BLOCK MACHINE

a truly HIGH PRODUCTION machine!  
Rugged, Powerful, Dependable . . .  
a Bergen Tri Matic is your assurance of maximum top  
quality production, for many years.



## LIGHT-WEIGHT HOIST

The low-headroom  
feature (requires only 12 ft.) plus the new power-  
ful magnetic plate makes the BERGEN Hoist a  
real high-production asset to any block plant.

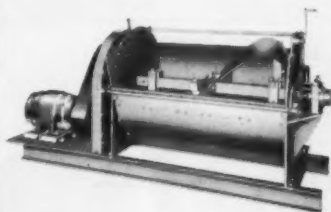


This Not this with this

*Zeromatic*

HEIGHT & DENSITY  
CONTROL

The BERGEN ZERO-  
MATIC automatically  
controls aggregate volume to the mold and the vibration  
period under pressure. It maintains precise *Quality Control*  
on the Density, Texture, and Height of the blocks produced  
on your block machine.



## BATCH MIXER

Unusually heavy construc-  
tion — you get longer,  
trouble-free life from  
genuine Ni-Hard liners  
and blades, as well as

double life from the exclusive reversible 130-tooth main  
gear. All combine to assure superior mixing for many years.

**MORE**  
block plants  
are buying  
**MORE**  
**BERGEN**  
EQUIPMENT

*Every  
day!*

Phone "Collect" or  
write for complete details and  
prices of these or any other Bergen products.



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MACHINE & TOOL CO., INC.

**NUTLEY, NEW JERSEY**

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# 2-WAY RADIO

makes satisfied customers for Travers Supply Co.  
of Decatur, Ill.



## SPEEDS READY-MIX CONCRETE DELIVERY

*Direct from the site, Ralph Calfee radios dispatcher John Mosser that another yard is needed to complete the job.*

Photos Courtesy Decatur Herald Review

### HERE'S HOW RADIO HELPS YOU

John Stoune, Travers' manager, was arriving at a job in his radio equipped station wagon. Dispatcher Jim Mosser radioed, wondering about a gravel truck due on the job. Stoune answered, "He's dumping the load now—should be back in 20 minutes." Dispatcher Mosser knew exactly when he could schedule that truck for another job. A mixer returning to the plant was heard reporting mechanical trouble. A service truck was immediately sent to him and a spare truck dispatched to fill his next order—as much as an hour saved, not to mention the finisher's temper if he had run out of cement.

If forms aren't ready, the dispatcher gets the report in 30 seconds and can direct the mixer to another site nearby. When an estimate runs short, a fast radio call—direct from the job—gets the concrete there to finish the job. Loose ends at the end of the day are cleaned up easier with radio—drivers and batch plant men get home on time, and expensive overtime payroll is slashed.

With constant dispatcher contact and control, every truck does a bigger job every day, making a more efficient, more profitable operation. And customers are kept serviced, happy and loyal.

### HERE'S WHY MOTOROLA DOES THE JOB BETTER

Motorola consistently supplies more mobile and portable radio than all others combined . . . proof of acceptance, experience and quality. The only COMPLETE radio communications service—specialized engineering . . . product . . . customer service . . . parts . . . installation . . . maintenance . . . finance . . . lease.

**VERSATILE**—Motorola produces the greatest variety of 2-way radio equipment available—equipment that can be combined to form a custom-made system at production line prices.

**RUGGED**—It is built to take the severe beating that any ready-mix work imposes on it—proven in use for long life, dependability and economy.

**SERVICE**—There is a Motorola Service Station near you. Motorola offers the most complete national service set-up—700 Authorized Service Stations, on call 24 hours a day.

**TERMS**—You can have Motorola 2-way radio on purchase, time payment, or lease (with or without equity).

Get the full facts from a Motorola Communications Engineer. Write, phone or wire TODAY!



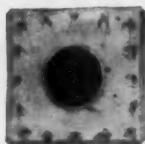
## MOTOROLA

COMMUNICATIONS & ELECTRONICS, INC.

A Subsidiary of Motorola, Inc., 4501 Augusta Boulevard, Chicago 51, Illinois

# Prestressed Hollow-Core 'Incor' Piles

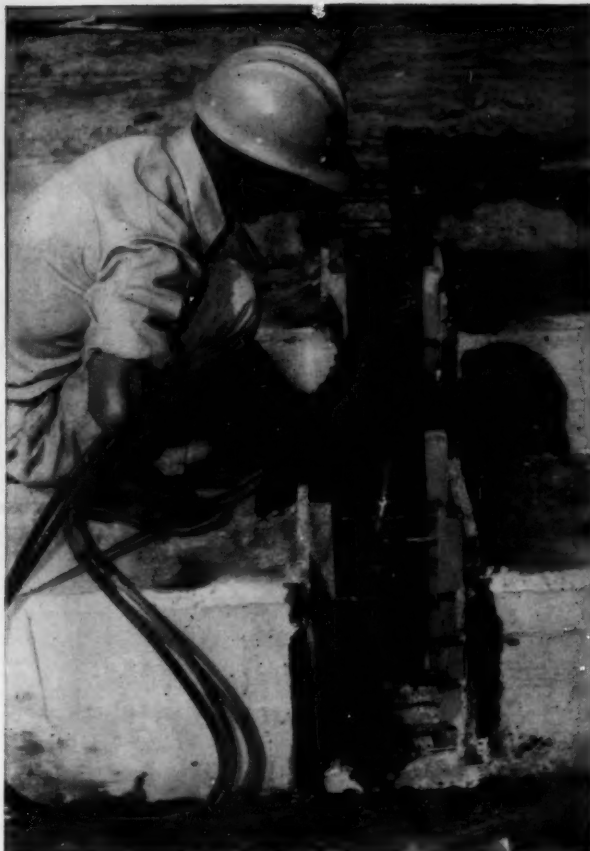
*Speed Wharf Construction at Esso  
Standard Deep Water Oil Terminal*



● Interesting feature of this wharf, recently completed at Esso Standard Oil Company's Deep Water Oil Terminal, Newport News, Va., is the use of precast prestressed hollow-core concrete piles in the tanker dock with its six reinforced concrete mooring and breasting dolphins.

Piles average 77 ft. in length, with 18 x 18 in. cross section and 8 in. hollow core. A total of 151 prestressed piles were precast and pretensioned at job site, three piles at a time in each of seven 250 x 30 ft. pretensioning benches, using 'Incor'\* 24-Hour Cement in the mix for faster re-use of the casting beds.

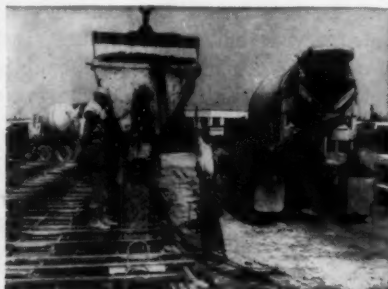
In the pretensioning bench, 'Incor' substantially reduces production time, and therefore cost, by providing



dependable high early strength in 24-48 hours, making possible faster turnover.

In service, 'Incor' high-early and high-ultimate strengths assure quality concrete which is specially important in realizing the fullest advantage from prestressing.

\*Reg. U. S. Pat. Off.



Above, left, new wharf is supported on 151 prestressed 'Incor' concrete piles, average length 77 ft. Piles were prestressed at job site: right, placing 'Incor' concrete in forms.

ESSO STANDARD OIL COMPANY—  
DEEP WATER OIL TERMINAL  
Newport News, Va.

Designed by  
CARIBBEAN CONSTRUCTION CO., LTD.  
Kingston, Jamaica, B.W.I.

Engineers and General Contractor:  
TIDEWATER CONSTRUCTION CORPORATION  
Norfolk, Va.

Ready-mix 'Incor' Concrete:  
BENSON-PHILLIPS COMPANY, INC.  
Newport News, Va.

## LONE STAR CEMENT CORPORATION



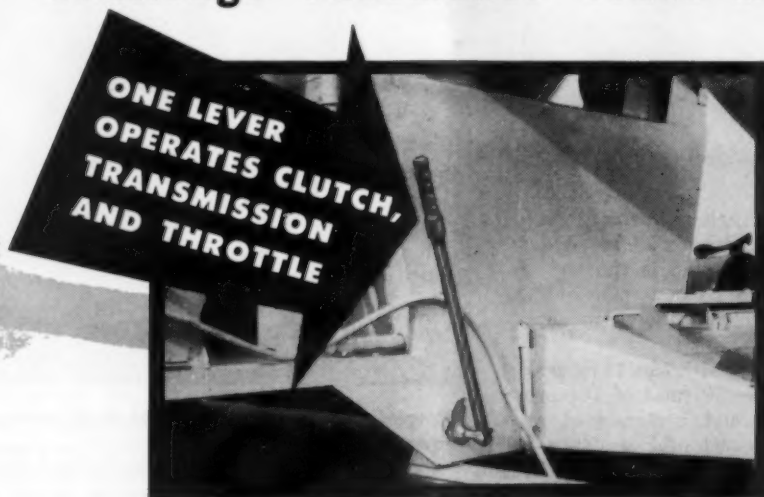
LONE STAR CEMENTS COVER  
THE ENTIRE CONSTRUCTION FIELD

Offices: ABILENE, TEX. • ALBANY, N. Y. • BETHLEHEM, PA.  
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NORFOLK • RICHMOND • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 18 MODERN MILLS, 38,000,000 BARRELS ANNUAL CAPACITY

# NOW!

## The Challenge "Uni-Lever" Control... Standard Equipment On All Challenge "Pacemaker" Truck Mixers



First developed for the Challenge "ETO" Pacemaker, the "Uni-Lever" control is now standard equipment on all Challenge "Pacemaker" Truck Mixers. With the "Uni-Lever" you start, stop, reverse and regulate the speed of the mixing drum. No complicated time consuming effort. With just one single lever,

conveniently located at the rear of the mixer, the driver has positive control of the mixer during the entire job operation. Truly, operating simplicity at its best. The "Uni-Lever" cab control is also standard, enabling the driver to move the truck and discharge concrete at the same time.



Operation of Challenge "Pacemaker" Truck Mixer is easily handled from ground with the "Uni-Lever" Control—standard equipment on all models.

"Uni-Lever," one of the many outstanding Challenge features which makes the "Pacemaker" easier and faster to operate... less expensive to service and maintain...building greater profits on every job.

**COOK**  **BROS.**  
**EQUIPMENT COMPANY**

Exclusive worldwide distributors for  
Challenge "Pacemaker" Truck Mixers

3334 San Fernando Road, Los Angeles 65, Calif.



# CLINTON WELDED WIRE FABRIC

**... the concrete reinforcement that is low in cost and so easy to use**

Versatile Clinton Welded Wire Fabric is ideal for so many different concrete reinforcement jobs. It can be quickly laid because it comes in conveniently-sized rolls or sheets and can be easily cut to shape without heavy, special equipment.

**Typical applications for Clinton Welded Wire Fabric are:**

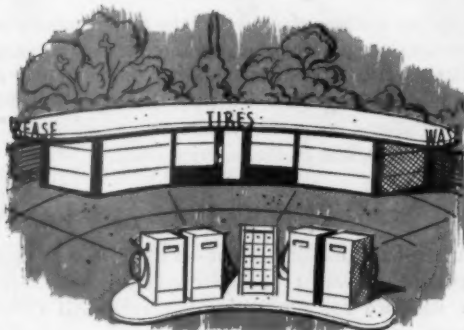
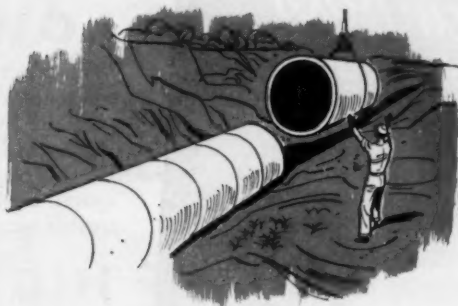


## PRECAST REINFORCED PRODUCTS

such as these wall panels. On jobs such as this, Clinton Welded Wire Fabric is ideal since it's easy to handle and affords excellent strength characteristics because it's made from high-yield-strength wire. Other precast applications include concrete planks, floor slabs, roof slabs, burial vaults, laundry tubs and tanks.

## REINFORCED PIPE

like this storm sewer. Clinton Welded Wire Fabric is excellent for concrete pipe reinforcement because it is easy to place when making the pipe ... because it gives the pipe long life, high strength and the ability to withstand heavy, concentrated loads. Reinforced pipe is also widely used for culverts, sanitary sewers and airport drainage.



## BUILDINGS

ranging from this service station to huge skyscrapers can make excellent use of Clinton Welded Wire Fabric. It will help hold future maintenance costs to a minimum by controlling cracking, equalizing loads and preventing deterioration. As a result, this durable, dependable fabric is widely used in office buildings, schools, hospitals, apartments, residences and warehouses.

You can get full information on how you can use Clinton Welded Wire Fabric to best advantage in your operation by writing to the nearest office below. Do it today.

WHEN THEY ASK ...

*"is it Reinforced"*

SAY YES WITH ...

**CLINTON**

**CFI**

3688

THE COLORADO FUEL AND IRON CORPORATION: Albuquerque • Amarillo • Billings • Boise • Butte • Casper • Denver • El Paso • Ft. Worth • Houston • Kansas City • Lincoln (Neb.) • Oklahoma City • Phoenix • Pueblo • Salt Lake City • Wichita. PACIFIC COAST DIVISION: Los Angeles • Oakland • Portland • San Francisco • Seattle • Spokane. WICKWIRE SPENCER STEEL DIVISION: Atlanta • Boston • Buffalo • Chicago • Detroit • New Orleans • New York • Philadelphia. CFI & I OFFICE IN CANADA: Toronto.

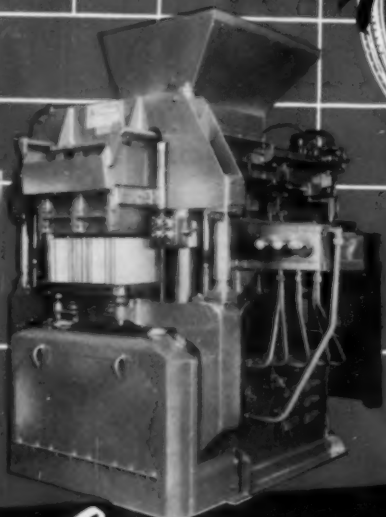
# Why



# up to the MINUTE

# "ENGINEERING"

# Means



## Columbia's Model 8 FULLY AUTOMATIC BLOCK MACHINE

Including: Pallet feeder, mold, feed box agitator, electronic controls and panel, all motors and switches, pumping unit and electronic height and density control. Ready to work for you...

and the price is just

# \$10,385

F.O.B. VANCOUVER

Investigate our "Pay as You Depreciate" finance plan. Terms up to 6 years.

## LOWER FIRST COSTS

Simplicity of design and construction explains the low initial cost of precision-built Columbia Machines. Positive hydraulic principles eliminate cams, levers, gears, belts, pulleys, gear head motors, shear pins and other costly wearing parts. All factors essential to smooth, trouble-free operation are built into Columbia Machines—making the Columbia line the biggest dollar's worth of machinery on the market today!

## LOWER MAINTENANCE

With fewer moving parts to wear out or give trouble, Columbia Machines reduce maintenance costs to an absolute minimum. All parts are completely covered to seal off grit of plant operation. Bearings are oversized and sealed to insure longer life. Columbia's electronic-hydraulic control system provides a protective "cushion" against mechanical stoppages, and halts the cycle automatically if trouble occurs.

## HIGHER QUALITY

Columbia Machines are manufactured of the finest material available, with an extra strength factor to guarantee against breakage or distortion. Electronic control gives pinpoint command over every phase in the block-making cycle—including height and density control. Units produced are perfect in size, shape and texture, and reflect the superior qualities of the machine itself.

## HIGHER PRODUCTION

The fully automatic Columbia Machine—with its super-fast agitation and short head movement for higher operating speeds—establishes a new standard for production averages. All Columbia Machines operate at 4 to 6 cycles per minute with standard plain pallets. Molds can be changed in 15 to 20 minutes when production is continued on blocks of the same height.



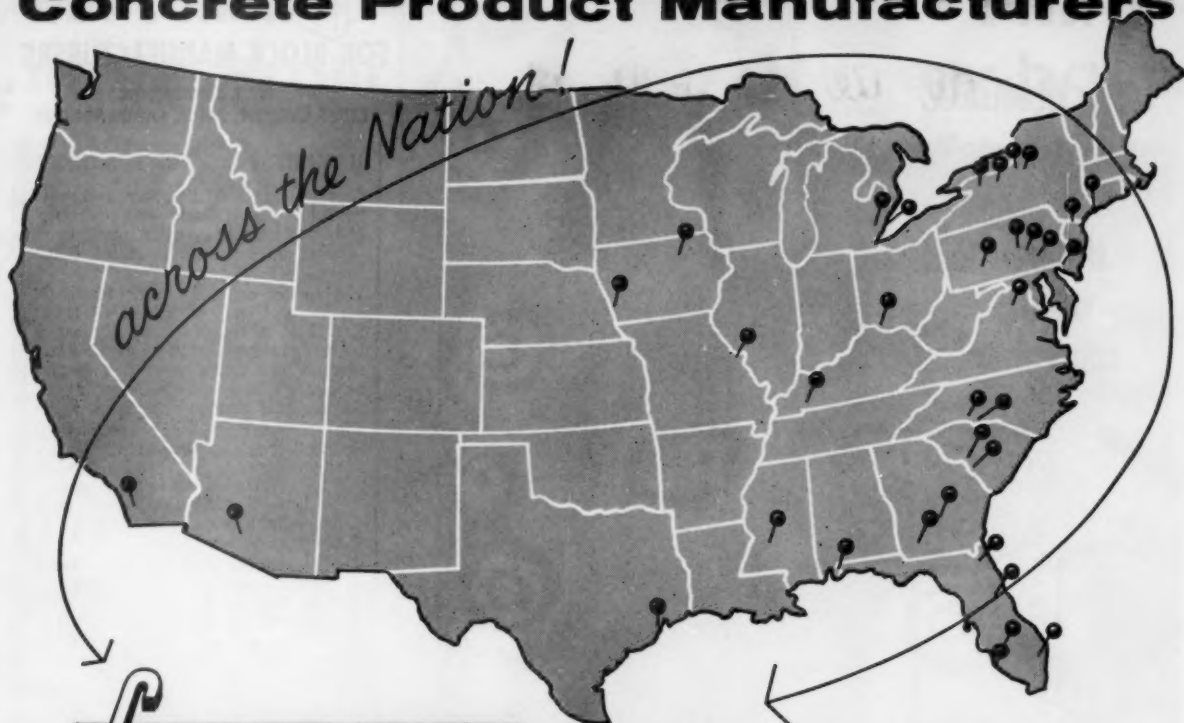
# Columbia MACHINE

Home Office: 107 S. GRAND, VANCOUVER, WASHINGTON  
Factory Branch and Warehouse at Mattoon, Illinois.

If you are planning a plant expansion, a new plant, or would like to add concrete block production to your present business, call us at our expense... and we will have a qualified man in your plant within 24 hours. There's no obligation! Phone Office 4-1801.

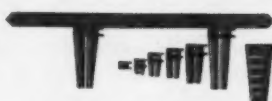
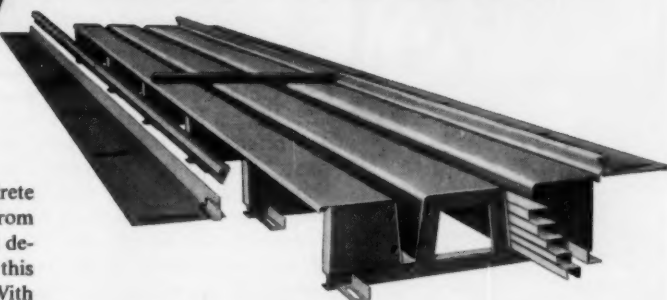
District Offices in: Wisconsin, Illinois, South Carolina, Mississippi, Florida, New Jersey, Virginia, California, Massachusetts, Texas, Montreal, Toronto, Vancouver, B. C.

# The choice of Prestressed Concrete Product Manufacturers



## STEEL FORMS

The immediate acceptance and purchase of Form-Crete Steel Forms by prestressed concrete manufacturers from coast to coast provides ample assurance of the sound design, practical rugged construction and economy of this new innovation in the prestressed concrete field. With the addition of a line of I-beam forms engineered for casting all standard specified sizes of prestressed concrete I-beams we offer the most complete line of coordinated interchangeable forms and accessories obtainable anywhere. A new revised catalog is available soon—write for your copy today.



**FORM-CRETE DOUBLE-T ALL-STEEL CASTING FORMS**—By utilizing a variety of gout forms and stem heights an ingenious manufacturer can easily surpass the 37 individual prestressed concrete castings that we conservatively estimate may be produced from this one all-steel form assembly.

SEND FOR **FORM-CRETE BULLETIN 100-A**



**FOOD MACHINERY  
AND CHEMICAL CORPORATION  
FLORIDA DIVISION  
LAKELAND, FLORIDA**

PF-5

FORM-CRETE STEEL FORMS FOR CASTING REINFORCED OR PRESTRESSED CONCRETE



DOUBLE "T" SLABS



SINGLE "T" JOISTS



HOLLOW AND  
SOLID LINTELS



SQUARE AND  
OCTAGONAL PILING



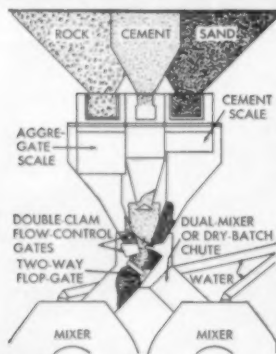
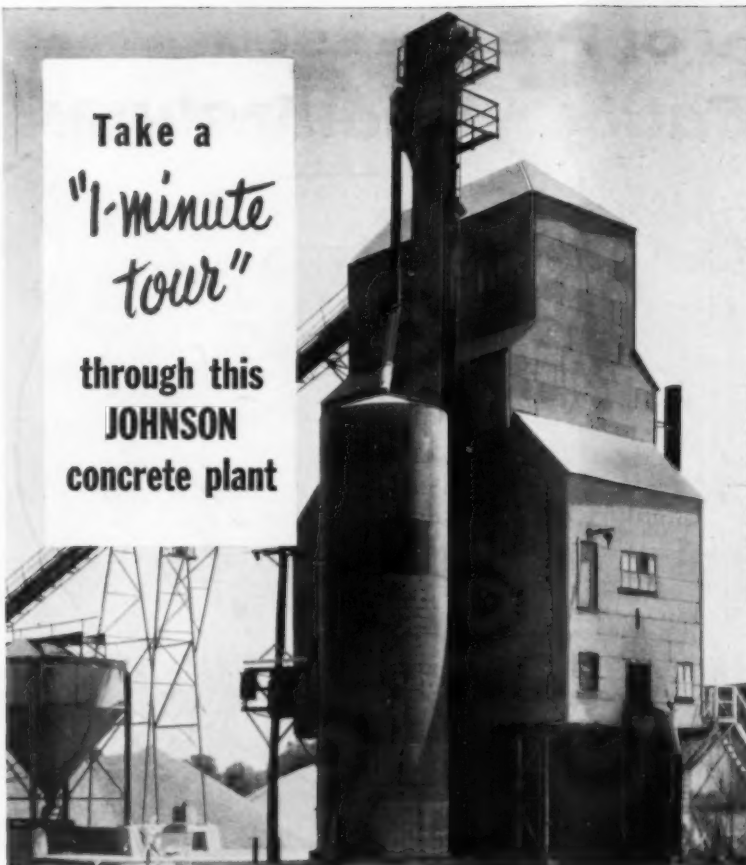
BRIDGE BEAMS



PAN TYPE  
BRIDGE DECKS



Take a  
"1-minute  
tour"  
through this  
**JOHNSON**  
concrete plant



### CENTRAL CEMENT FEED with Concentric Batcher

- Prevents "gumming", reduces dusting, pre-shrinks materials
- handles 2 to 8 aggregates, arranged concentrically around 1 or 4 types cement
- weighs cement on separate scale, aggregates on accumulative dial scale or individual beam scales
- dual discharge available
- 2 to 8 cu. yd. sizes, fully automatic air-ram operated, semi-automatic, or manual control.

Trace the flow of aggregates and cement through this Johnson central-mix plant. You'll find it an interesting "tour":

Vertical bucket elevator feeds cement from silo to overhead bin at the rate of 275 bbls. per hour. The 1032-bbl. storage silo assures an ample supply of bulk cement on hand for uninterrupted production. Inclined conveyor feeds aggregates from stockpile to bin. Johnson All-Welded Portable-Section Bin provides 200 cu. yds. of overhead storage of aggregate and cement for immediate plant use. Bin is divided into 4 equal aggregate compartments, and a 260-bbl. central cement tank. 3 cu. yd. Concentric Batcher (see diagram) accurately weigh-batches all materials at top speed, and discharges into Koehring 3-yd. Mixer. Water weigh-batcher gives close quality control of mixed concrete.

There's a size and type of Johnson plant that will fit your exact needs, too. Ask your Johnson distributor about it.

**C. S. JOHNSON CO., Champaign, Ill.**  
(Koehring Subsidiary) T&B-W-CONC.



## JOHNSON CONCRETE PLANTS

BINS • BATCHERS • HOPPERS • ELEVATORS • SILOS • BUCKETS



## WHAT'S NEW FOR BLOCK MANUFACTURERS

BY J. J. PARKSON  
CHIEF CHEMIST, EDICK LABORATORIES

### RACK RUST STOPPED FOR GOOD

A new chemical discovery makes it possible to completely stop corrosion and permanently prevent rust from forming on racks. It is called RAC-KOTE.

Having exceptional rust, chemical, alkali, and water resistance, RAC-KOTE is a tough, chemically active coating that provides racks with a minimum of one year's protection. Annual application results in permanent protection from rust and corrosion.

Chemists don't usually become involved in the dollars and cents angle of product development, but in the case of RAC-KOTE we've taken time out to do a little figuring on the important savings this new product can mean to a block manufacturer!

The average life of a rack is five years, so plants generally figure on replacing 20% of their racks each year. But now, RAC-KOTE eliminates rack replacement. . . . actually saves you \$800.00 a year for every hundred racks in your plant. Here's how:

Yearly replacement of 20 racks	= \$1000.00
Cost of protecting all 100 racks with RAC-KOTE	= 200.00
Saving each year	= \$ 800.00

And in addition to keeping racks free from rust, RAC-KOTE gives you other benefits. . . racks retain their original strength and dimensions, eliminating weakened legs, distortion, binding of pallets, also eliminates rusty condensate water that can mar the block's appearance.

RAC-KOTE is easy to apply to old or new racks with either brush or spray. One gallon protects five racks. Drying time is 8 hours; overnight, racks are ready to use. It's that simple!

Stop rust and corrosion from eating away your profits. Order RAC-KOTE today for both old and new racks. In 5 gallon containers, \$10.00 per gallon. Freight allowed to all points in U.S.A. Use this handy order form. Start saving right away!

Edick Laboratories, Inc.,  
427 W. National Ave., Milwaukee, Wis.

I want to cut costly rack replacement.  
Please rush .... 5-gallon cans of RAC-KOTE.

Name .....

Company .....

Address .....

City ..... State .....



**More Profit**

**on every pour**

**with  
TRANSCRETE®**

**MIXES BETTER CONCRETE — FASTER**

Extra large diameter drum head plus deep "L" section blades for more mixing action per each drum revolution.

**QUICKER DISCHARGE**

Exclusive CMC Swing-Out Hopper swings out for discharge so concrete can come through big UNOBSTRUCTED opening in full, easily controlled stream.

**TROUBLE-FREE OPERATION**

Only TRANSCRETE has the CMC Floating Drive that absolutely eliminates all the troubles of ordinary rigid drives.

**4 Models — 3½ to 7 yard capacities**

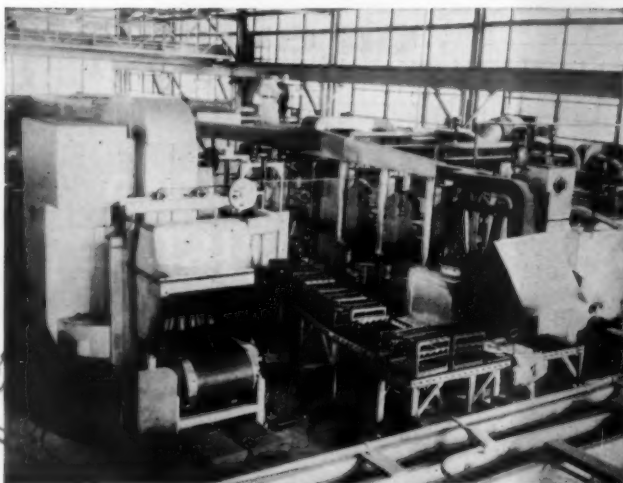


*For complete information on TRANSCRETES...  
contact your local CMC distributor... or write us*

**CONSTRUCTION MACHINERY COMPANY • Waterloo, Iowa**

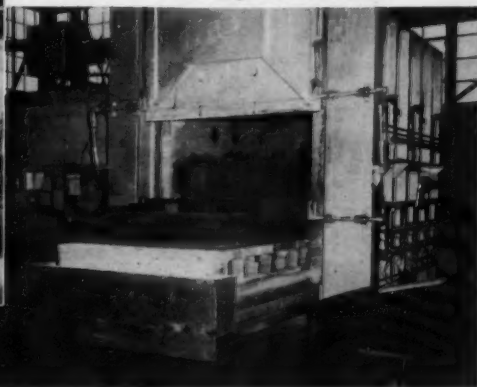
# Million Dollar Heat Treat Department

## *Insures* QUALITY CONTROL!



Interior view of the million dollar Besser Heat Treat Department.

Car furnace showing car loaded with parts before entering furnace.



The Besser Company's facilities for precision manufacture of Vibrapac machines and parts is further evidenced by the \$1,000,000.00 heat treat department. More than 8000 square feet of the spacious Besser plant is devoted exclusively to heat-treating.

Special steel is selected for each machine or mold part. Then, based on its application, it is heat-treated to insure maximum hardness against abrasive wear, as well as toughness to resist shock and vibration.

**Tip to Block Makers** — You can save money by buying Besser Standard Division Plates because they are made of special alloy steel, heat-treated to a Rockwell "C" hardness of 63/65 and a case depth of 5/64" per side — then tempered to guarantee uniformity of hardness and finally 100% inspected.

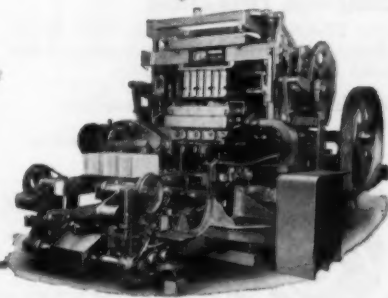
### **BESSER Company**

BOX 127, ALPENA, MICHIGAN, U.S.A.

*Complete Equipment for Concrete Block Plants*

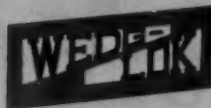


**GENUINE VIBRAPAC PARTS  
ARE MADE ONLY BY BESSER**



A 8898-1PC

# Faster, More Profitable Processing FOR MODERN BLOCK PLANTS

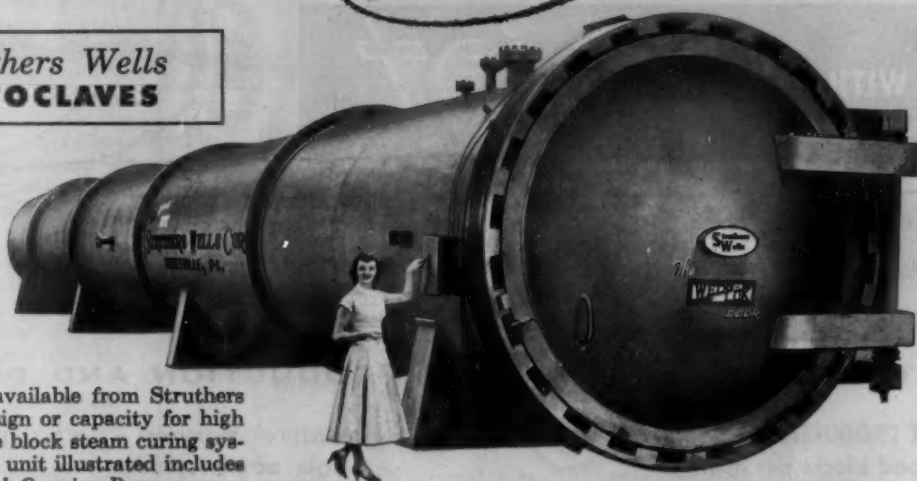


## Quick Opening DOORS

Simplified design assures speedy operation with the ultimate in safety for high pressure concrete block steam curing systems. Operated by a push-button controlled hydraulic unit, Wedg-Lok Quick Opening Doors feature a safety interlock warning device or optional positive safety system.

*Write for Sales  
Bulletin SW-553*

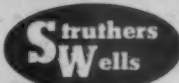
## Struthers Wells AUTOCLAVES



Autoclaves are available from Struthers Wells in any design or capacity for high pressure concrete block steam curing system service. The unit illustrated includes a Wedg-Lok Quick Opening Door.

**Titusville BOILERS** Known for dependability since 1860. Our Titusville Division builds boilers in all required capacities and types for cement industry service.

# STRUTHERS WELLS Corporation



**TITUSVILLE, PA.**

PLANTS AT TITUSVILLE, PA. AND WARREN, PA.

Offices in principal cities

## STRUTHERS WELLS PRODUCTS

### BOILER DIVISION

BOILERS for Power and Heat . . . High and Low Pressure . . . Water Tube . . . Fire Tube . . . Package Units

### PROCESSING EQUIPMENT DIVISION

Crystallizers . . . Direct Fired Heaters . . . Evaporators . . . Heat Exchangers . . . Mixing and Blending Units . . . Quick Opening Doors . . . Special Carbon and Alloy Processing Vessels . . . Synthesis Converters

### FORGE DIVISION

Crankshafts . . . Pressure Vessels . . . Hydraulic Cylinders . . . Shafting . . . Straightening and Back-up Rolls

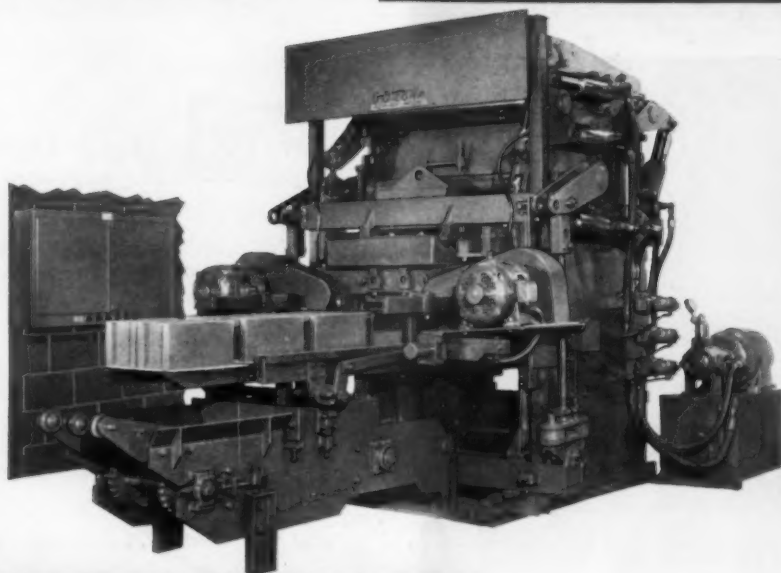
### MACHINERY DIVISION

MACHINERY for Sheet and Structural Metal Forming . . . Tangent Senders . . . Folding Machines . . . Roller Table and Tumble Die Bending Machines . . . Press Brakes . . . Punching and Notching Machines . . . Forming Dies

HIGH PRODUCTION  
2X and 2½X

LOW COST

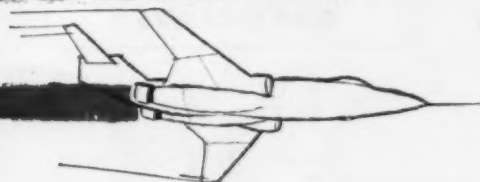
NEW!



NEW!

WITH THE GOCORP *jet*

Here's a low cost, durable, plain pallet block machine that will give you jet age production of blocks you can brag about. The JET builds profits for you that won't be eaten up by maintenance and the burden of frequent replacement.



## JET FEATURES THAT MEAN PRODUCTION AND PROFIT!!!

- **JET PRODUCTION** —Conservatively rated at 600 good blocks per hour.
  - **JET QUALITY BLOCKS** —Quick change feed and strip time controls to handle troublesome mixes
    - Automatic, low voltage height control • A block receiver that babies your most fragile blocks—no jolts or jerks.
  - **JET HYDRAULIC DRIVE** —For swift, smooth, effortless motions.
  - **BUILT TO LAST** —Rugged frame has full 1" side plates—thoroughly braced with plate and structural members • Motors, pumps, shafts, single acting cylinders are all oversized for real staying power • Plug stop reversing vibrator motors—no brake failures.
  - **ACCESSIBLE** —Working parts are where you can get at them • No pit required • Easy to adjust
    - Easy to clean • Easy to maintain • Change full height molds in about 20 minutes—to other heights in about 30.
  - **TWO VERSATILE SIZES** —Either 2X or 2½X.
- For higher production at a lower unit cost, write today for your brochure on the GOCORP JET.

**OTHER GOCORP EQUIPMENT** —The "Trustee" (3X husky brother of the "Jet"), "King" (6X) and "Senior" (3X) Plain Pallet Machines • "Junior" Cored Pallet Block Machines (Single or Twin Models) • Mixers and Skips (up to 75 cu. ft.) • Allied equipment.

**G-O-CORP**  
**ADRIAN-MICH.**  
405 Grace Street Adrian, Michigan



## COMMENT

from the  
**BUTLER ENGINEER**

**... of traffic tangles  
and racing 34E pavers**

Overheard at the Ready Mixed  
Show:

*"So you want me to cut my  
price? Look, this equipment  
will pay you a profit for  
years to come. I only make  
a profit on one sale—and  
you want to cut me out of  
that!"*

The other day I drove from Waukesha to Milwaukee. Had to slam on my brakes to dodge a truckload of concrete block swinging out of a block plant (a Butler customer). In back of me (and he hit *his* brakes) was a transit-mix truck from a Waukesha ready mix outfit (another Butler customer). After I swallowed my heart I started to pass the block truck but had to swing back to avoid a transit-mix truck from Company Y in Milwaukee (another Butler customer). All right, don't believe this: booming along in back of Y's truck was another transit-mix owned by Z (another B-C). Kind of a concrete traffic problem!

With the Butler 0-1-0 one-man-operated Roadbuilders' Plant I rather thought we had reached a pretty ultimate high for production. Now comes the idea of adding an aggregate bin for one size of stone (pre-set controls and automatically batched of course). Such a set-up would play ring-around-a-rosy with THREE 34E dual drum pavers.

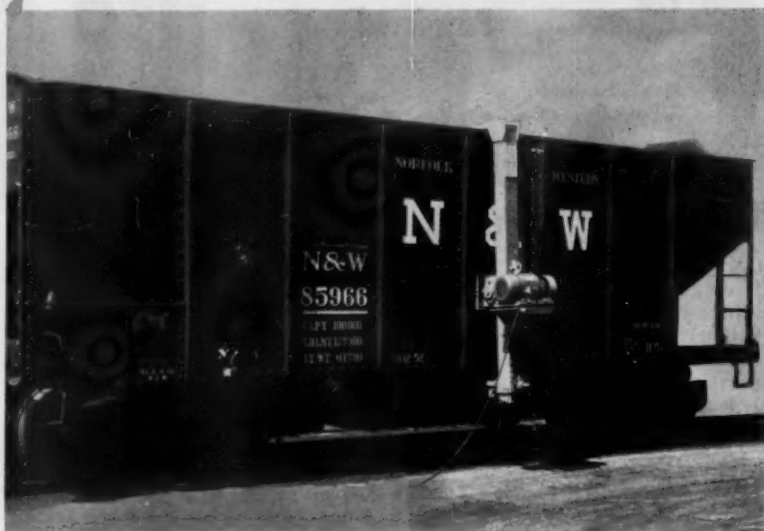
Butler Automatic Batching (roadbuilders, ready mix or concrete products) will not do certain things. It won't mix baby's formula wash the dishes polish your car but it will make you such a happy, handsome profit you can hire those jobs done.

Stay healthy, wealthy and you won't need to be wise

*The Butler Engineer*

**BUTLER BIN COMPANY**  
WAUKESHA, WISCONSIN

## the NATIONAL CAR SHAKER costs little — works hard



Profits for you are the result of the National Car Shaker— profits derived from the fast, efficient, complete unloading of aggregates with only *one* operator.

The National Car Shaker combines low cost with the best engineering principles such as all-welded box girder frame, patented rubber-to-rubber motor mount, hardened bolts and nuts and triple V-belt drive.

Many years of trouble-free operation are yours with the National Car Shaker. The first one produced is still in daily operation after eight years of the roughest work.

Write for full information on the money-saving National Car Shaker today—right now.

## NATIONAL CONVEYOR AND SUPPLY COMPANY

358 N. Harding Ave.

Chicago, Ill.

**NOW YOU GET THE BEST FOR FAR LESS!**

# Forrer's XL-100 Powdered Concrete Plasticizer!

**Will Not Gum Up!  
Guaranteed  
"FREE-FLOWING"**

**Costs only 1/4c per bag of cement**

Cut your plasticizer costs to the bone with XL-100 dry powder. It weighs less — goes farther and does a better job. New process brings you a plasticizer that acts faster, takes 1/3 the amount (by weight) and does a superior job. Concrete blocks are shades whiter, denser and outside surfaces have smoother texture. Increase contractor, builder satisfaction — deliver a better block for less than 1/4c per bag of cement. Investigate Forrer's XL-100 today!



**COMPARE!**

**SEE THE AMAZING DIFFERENCE!**  
Forrer's XL-100 is a dry hydrated powder with wetting and dispensing agents. It's easy to use and economical too — costs but 1/4c per bag. Free sample on request — Send Coupon Today!

Division of SPRAY-O-BOND CO., 2225 N. Humboldt Ave., Milwaukee 12, Wisc.



## **BES-STONE Split Block** *MAKES the Difference*

**\* Advances architectural design and beauty**

**\* BOOSTS YOUR PROFITS!**

**+ Add a BES-STONE BLOCK SPLITTER to your plant NOW**

You'll find it full of profit-opportunity because the trend toward BES-STONE Split Block is strong! Architects, contractors, owners WANT this beautiful, modern, colorful "quarried stone" effect that is so ideal for all structures . . . commercial, institutional, residential. BES-STONE Block Splitter makes straight line cuts . . . no cull block. Automatic hydraulic operation . . . up to 960 Split Block per hour . . . safe, quiet . . . a big money maker!

**BES-STONE**  
*the Split Block*  
*with Character*



Automatic operation —  
960 Split Block per Hour

Write for  
BES-STONE  
Bulletins  
95A and 100

**BESSER COMPANY • Complete Equipment for Concrete Block Plants • Alpena, Michigan, U. S. A.**



## ADJUSTA-WATE MOTO-MIXERS



## LEADERSHIP Looks to Tomorrow ...Today

The ability to look ahead, work ahead, to the needs of tomorrow, is a characteristic of leadership!

This is the great advantage Rex Adjusta-Wate Moto-Mixers offer you. Rex leadership brings you the "years-ahead" features today ... gives you those profit-making advantages that keep you ahead of your competition. With Rex, you lead with *your* customers! In many cases, it will be years before you can expect comparable advantages in ordinary truck mixers.

Major improvements cannot be accomplished overnight. Sometimes they take years of experimentation and testing before they are truly ready! Actually, Rex engineers are today working on developments that look far into the future. When they will be ready is difficult to say. For, as the leader, we cannot afford to gamble ... to let users bear the burden of testing. The progress of ready-mix concrete ... of truck mixer development ... is too closely allied with Rex leadership for us to take

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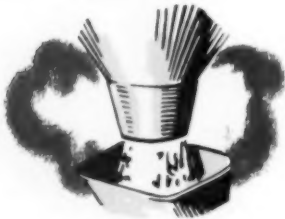
unnecessary chances. BUT, this we can promise — if you want to keep ahead of your competition . . . if you want to give your customers the best in service and quality, you'll want Rex

Adjusta-Wate Moto-Mixers. They're as far ahead of the field today as was the first truck mixer we introduced more than 25 years ago. You're always ahead with Rex.

## YOU'RE DOLLARS AHEAD... EVERY DAY WITH **REX** ADJUSTA-WATE

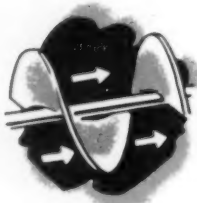
The "years-ahead" design of Rex Adjusta-Wate Moto-Mixers® is built around a simple fact — the *faster* you can charge your mixer, mix the concrete, deliver it and return for another batch . . . the more profit you make. Actual "time tests," under every conceivable type of operating condition, prove that

Rex is minutes faster on the complete cycle. Add up the number of trips you make per day and you'll easily see how important these minutes saved per trip are. They mean more trips per truck . . . extra deliveries . . . more customer satisfaction. And, satisfying customers is your best path to profit.



### CHARGING

We do not claim Rex will charge faster than any other mixer. But, don't be fooled by claims of charging speed. A few seconds saved at the plant is only achieved by the sacrifice of speed in mixing and discharging, where slowness will cost you minutes. We *do* state that no other truck mixer will equal the over-all speed of a Rex. Rex gives you speed where it counts . . . the fastest trip cycle.



### MIXING

No truck mixer will even approach the speed or thoroughness of the Rex mixing action. Speed here is important . . . and quality of mixing is even more important. Your customers demand thoroughly mixed, uniform, top-quality concrete and you give it to them with Rex. The Adjusta-Wate design principle that provides a drum of proper size, shape and low incline also provides the greatest free mixing space — a "must" for quality mixing!



### DISCHARGING

Here is where you . . . and your customer . . . appreciate speed. Rex will discharge faster . . . more completely . . . and with a spouting range greater than any other mixer. The Adjusta-Wate design principle *always* locates the discharge point back of the rear tires where it must be for effective discharge. Only the Adjusta-Wate principle permits mounting the mixer on any truck to gain this favorable discharge . . . and still retains proper load distribution for maximum pay load.



ONLY THE LEADER  
**ADJUSTA-WATE MOTO-MIXERS**  
LEADERSHIP . . . THROUGH CREATIVE ENGINEERING

**CHAIN BELT COMPANY**

4695 W. Greenfield Ave., Milwaukee 1, Wis.

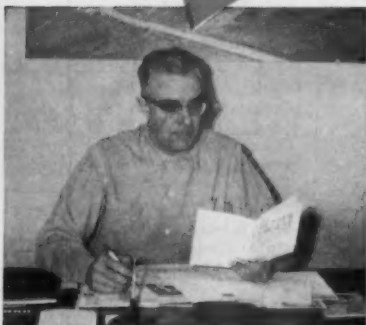
Litho in U.S.A.



This is the 134th of a series of ads featuring leaders of the Concrete Products Industry who are stepping up block production with Besser Vibrapac machines.

# Another BESSER BOOSTER

## South Dakota Plant Orders Second Besser on Vibrapac Agreement



Les Kennedy, President of Dakota Lime & Brick, reading his copy of the Besser Digest.



New Vibrapac in the Dakota plant. No machine operator required. No manual lifting. Off-bearer merely guides the Besser Power Hoist.



Besser power cubing of block facilitates loading of block . . . speeds up deliveries.

The Dakota Lime & Brick Company, Rapid City, South Dakota, started in the concrete block business in 1947. A year later they installed their first Besser Vibrapac on the Vibrapac Agreement. The satisfactory performance of this first machine, plus the profits made, prompted the company to secure another Besser in 1953. This was also on the Vibrapac Agreement.

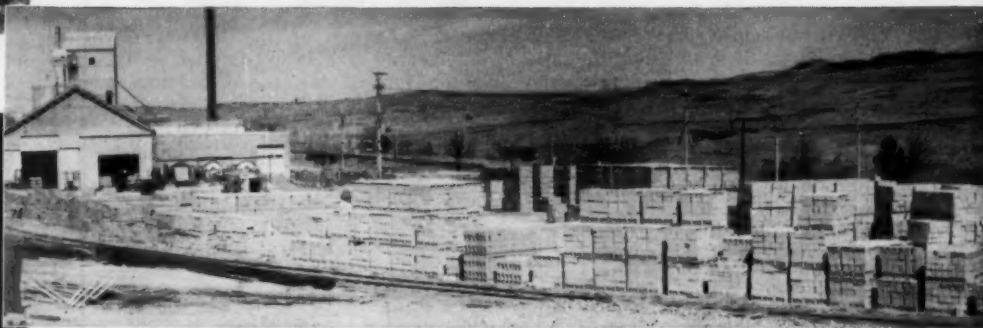
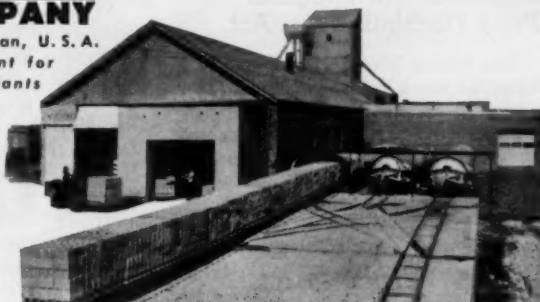
Les Kennedy, President of the Dakota plant, states: "*The Vibrapac is unquestionably the best equipment available to produce high quality block in high production with a minimum cost for maintenance*". He should know. His opinion is based on years of experience with Vibrapac equipment.

A modern, well-equipped plant with cash outlay greatly reduced under the Vibrapac Agreement, and with adequate stocks of aggregate within 1/2 mile of the plant, paved the way for success in the block business. This South Dakota plant is definitely on the way.

### BESSER COMPANY

Box 127, Alpena, Michigan, U. S. A.  
Complete Equipment for  
Concrete Block Plants

Autoclaving in cubes.  
This is one of the first  
plants to employ high  
temperature presetting  
and high pressure steam  
curing of block.



Exterior view of plant which has an unusual location insofar as it is located within 1/2 mile of sources of cement, lightweight aggregate and sand and gravel.



NATIONAL HOUSING CENTER, WASHINGTON, D. C.,  
where Besser maintains a permanent exhibit  
of concrete masonry. Be sure to visit  
this fine display.



*first* in concrete block machines

# INDUSTRY NEWS

## NCMA Holds Mid-Year Meeting

The mid-year meeting of the board of directors and committees of the National Concrete Masonry Association was held recently in Victoria, British Columbia.

Among the topics that were reviewed were membership, accident prevention, promotion, technical problems, local state and regional associations and budget and finance. Approximately 47 officers, directors, committee members and their families gathered for the 4-day session.

## Senate Might Toughen Price Discrimination Act

The Senate is currently conducting hearings on a bill which may seriously affect the practice of many cement companies to absorb freight charges in order to compete in distant markets. The Patman-Kefauver Bill, which has already passed the House by a 393-3 vote, would amend the Robinson-Patman Price Discrimination Act by putting a condition on the clause that it is a complete defense for a seller to show that his lower price or facilities to any purchaser was made in good faith to meet an equally low price or the services or facilities furnished by a competitor. The condition is "unless the effect of the discrimination may be substantially to lessen competition or tend to create a monopoly in any line

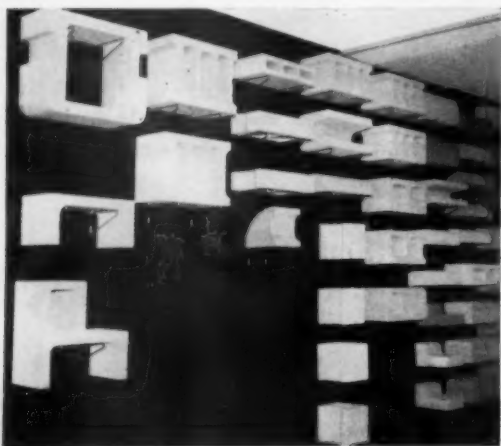
of commerce."

According to the National Ready Mixed Concrete Association, it will take years, should the bill go through, to determine exactly where the effect of discrimination lessens competition or creates monopoly and where it does not. Meanwhile, says the association, it is possible that a large number of cement companies will not be willing to take the legal risk of absorbing freight, and concrete firms may find it hard to get materials at a price they can afford.

## Report on Cracking of Concrete Face Brick

The cracking of concrete face brick could be minimized by the development and issuance of improved criteria for its manufacture and installation, according to a Building Research Advisory Board report recently transmitted to the Federal Housing Administration. However, the board pointed out that in many localities cracking has not been a problem. The report attributes this to proper manufacture and installation and, in some instances, to favorable weather conditions.

The Building Research Advisory Board is a unit of the Division of Engineering and Industrial Research of the National Academy of Sciences, National Research Council, which appoints the board's 30 members from the ranks of the foremost technologists of industry.



## Peg This!

● Four standard 4- by 8-foot pegboard panels provide this attractive display of types and sizes of concrete masonry units produced and sold by Lavaland Heights Block Company of Albuquerque, New Mexico. The units rest on the wire shelf brackets developed for use with pegboard.

## Calendar . . .

<b>AUGUST 13-16</b>	National Ready Mixed Concrete Association—Committee Week—Jefferson Hotel—St. Louis, Missouri.
<b>AUGUST 24-26</b>	Concrete Products Association of Michigan—Late Summer Meeting—Grand Hotel—Mackinac Island, Michigan.
<b>OCTOBER 1-3</b>	National Ready Mixed Concrete Association—Semi Annual Board of Directors' Meeting—Del Monte Lodge—Pebble Beach, California.
<b>OCTOBER 20</b>	New Jersey State Concrete Products Association—Annual Dinner—Swiss Chalet—Rochelle Park, New Jersey.
<b>OCTOBER 22-26</b>	National Safety Council—44th National Safety Congress and Exposition—Conrad Hilton, Congress, Morrison, and La Salle Hotels—Chicago, Illinois.
<b>OCTOBER 29-31</b>	American Concrete Pipe Association—6th Annual Short Course School of Instruction—Chase Hotel—St. Louis, Missouri.
<b>NOVEMBER 12-19</b>	American Concrete Pressure Pipe Association—8th Annual Convention and Meeting—Castle Harbour Hotel—Tucker's Town, Bermuda.
<b>1957</b>	
<b>JAN. 28-FEB. 2</b>	American Road Builders' Association—55th Annual Convention—International Amphitheater—Chicago, Illinois.
<b>FEBRUARY 11-14</b>	National Ready Mixed Concrete Association—27th Annual Meeting—Statler Hotel—Los Angeles, California.
<b>FEBRUARY 25-28</b>	Concrete Industries Exposition—10th Biennial Exposition—Kiel Auditorium—St. Louis, Missouri.
<b>FEBRUARY 25-28</b>	National Concrete Masonry Association—37th Annual Convention—Kiel Auditorium—St. Louis, Missouri.
<b>MARCH 6-9</b>	American Concrete Pipe Association—49th Annual Convention—Shoreham Hotel—Washington, D. C.

## Ohio Ready Mix Firms Stage School for Customers

More than 100 contractors and construction workers attended a "Concrete School" presented recently by the Beckley and Myers Concrete Company and the Kuhns Concrete Company.

The three-day event was highlighted by a trip through the plant of the Southwestern Portland Cement Company at Fairborn, Ohio. The program was arranged by Russell P. Mumford and John D. Kuhns, executives of the sponsoring firms.

H. G. Wood, Columbus, district engineer for the Portland Cement Association, introduced PCA staff men who presented lectures, demonstrations and a motion picture on the use of ready-mixed concrete. Explanations of how the slump, strength, durability and water-tightness of concrete is altered by changes in the portion of water in the mix were made by Alan S. Montague, Cincinnati.

Two local men Ralph Phillips, Hoppes Builders, employe, and Harry Scott, driver for Kuhns Concrete Company, made test cones to show how slump can be controlled by using the proper amount of mixing water.

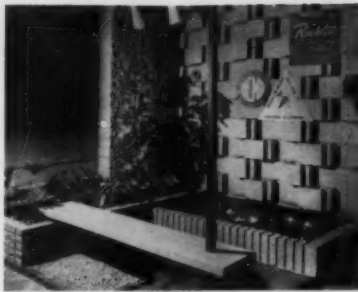
## Products Assn. Names Leland L. Sphar



Appointment of Leland L. Sphar to the position of engineer-manager of the Concrete Products Association of Washington was announced recently by James W. Sullivan, president of the association. Mr. Sphar is available for technical consultation in the field of concrete sewer and culver pipe, and concrete masonry and precast products.

## F. C. Nelch Succumbs

Franklyn C. Nelch, president of Henry Nelch & Son Company, Springfield, Illinois, died recently at the age of 56.



## NCMA Exhibit Wins Award

● This display took top honors for the National Concrete Masonry Association at the building products exhibition during the American Institute of Architect's convention at Los Angeles. It featured an unusually attractive textured wall design over a reflection pool.

## ASTM Committee C-15

Additional coverage, as well as changes in existing standards, on both clay and concrete types of structural building units was reported at the meeting of Committee C-15 on Manufactured Masonry Units, which met during ASTM Committee Week.

The existing standard specification for concrete masonry units has been under critical review for some time. A new method for measuring moisture content of these units, using a relative humidity method, will be recommended to the committee at the next meeting. A shrinkage test method is being considered, with several procedures being under study. The existing tentative revision to the

## News of Product Plants

BADGER CONCRETE COMPANY, Oshkosh, Wisconsin, has launched an expansion program which will be completed by August 15.

CARROLLTON CONCRETE MIX, Carrollton, Michigan, is in the final stages of constructing its plant facilities.

CHOCTOW, INC., West Memphis, Arkansas, has announced a \$100,000 improvement project for its plant. Now in progress is the establishment of facilities for the manufacture of pre-stressed pre-cast bridge slabs, the erection of a batching plant and the underlaying of pipe for live steam curing of the pre-fabricated bridge slabs.

COLORADO DUROX CORPORATION, Littleton, Colorado, has been formed

## Michigan Products Assn. Reelects All Officers

All the officers who served the Concrete Products Association of Michigan for the year 1955 were elected to a second term at the group's annual meeting. The slate includes the following: president, Richard Parisian, Standard Block and Supply Company, Lansing; vice president, Herbert Vincent, Cinder Block Inc., Detroit; secretary, Ivan Bernson, Western Concrete Products Company, Cadillac; and treasurer, Ray Berger, Martin Berger Cement Block Company, Detroit.

Three directors who were eligible for second terms were unanimously reelected. They are Morrie Mendelson, John Costerbaan, and Lloyd Pender.

Standard Methods of Sampling and Testing Concrete Masonry Units (C 140), which authorizes the use of either cement-gypsum capping or sulfur-filling capping, was approved.

The committee will consider terminology as one of its first approaches to the very difficult task of preparing standards on waterproofing materials. A test program is needed to establish the effectiveness of waterproofing materials in reducing the initial absorption of masonry units; and it was agreed that units as well as panels should be tested under moderate and severe conditions of exposure.

The committee will hold its next meeting during the 1956 annual meeting of the Society in Atlantic City, New Jersey.

to produce lightweight concrete building materials. The firm will operate under a franchise from a Swedish firm to produce Durox, a cellular lightweight concrete.

HOOPER CONCRETE PIPE COMPANY, Phoenix, Arizona, has increased its production from 300 to 500 tons per day. The company has placed in operation two centrifugal pipe spinning machines which will form pipe up to 96 inches in diameter and 12 feet long.

THE J. J. LOOMIS CONCRETE & SUPPLY COMPANY has opened a new plant at Barberton, Ohio. The company is expanding its operations to offer Supermix concrete and a complete line of building materials.

READY-MIX CONCRETE COMPANY, Seattle, Washington, has been sold to Pioneer Sand and Gravel Company.





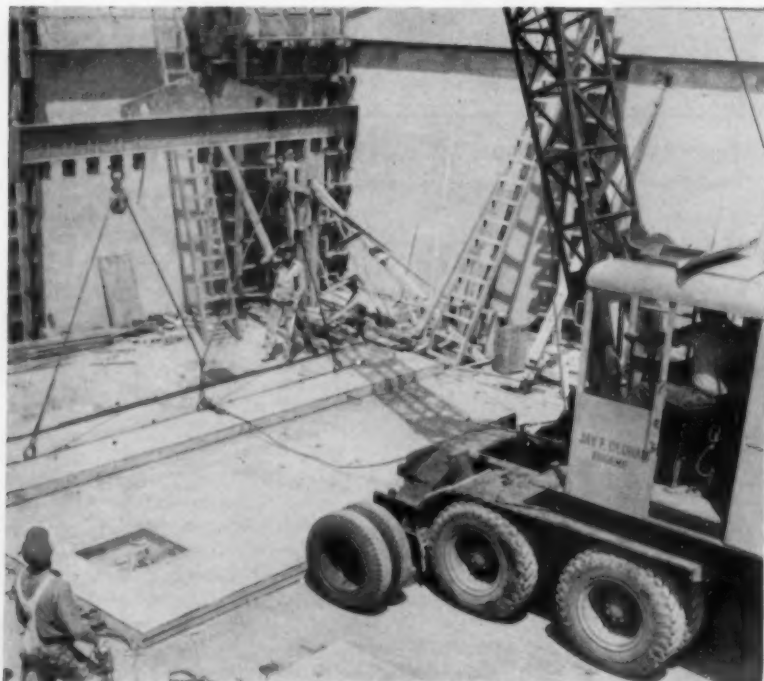
### Florida Association

● New officers of the Florida Concrete and Products Association, elected at the recent 2nd annual convention in St. Petersburg, are Neilson Jones of Maule Industries, president; Ernest Kilgore, Pinellas Concrete Products Company, 1st vice president; and Hugo Quillian, Quillian's Concrete, secretary-treasurer.



### Concrete Whale

● One of the headline attractions at the children's zoo in Kansas City's Swope Park is this concrete whale. He's 16 feet long and his mouth is 7 feet tall, so that visitors can cruise right in and commune with Jonah. The park's concrete shop turned out the 2-ton Moby Dick in 40 man hours.



### Outriggers Help

● A mobile set of truck crane outriggers developed by Oregon contractor Jay F. Oldham speeds tilt-up concrete work by making it possible to handle the 20-ton panels without the jerky and time-consuming stages of blocking, shifting and re-blocking the equipment. The simply-constructed mobile unit is transported to the job by means of a service pickup truck, and is attached to the crane by means of the same bolts used on the stationary outrigger screws.



## Claim Most Absenteeism Is Non-Occupational

A pamphlet published recently by the Occupational Health Institute, a non-profit organization created to help industry to establish sound health practices and programs, points out that employee absenteeism now accounts for an estimated \$10 billion annual loss to industry. Contradicting the long-held belief that occupational hazards and exposures account for a major share of absenteeism, the booklet states that almost 95 per cent of all absenteeism is non-occupational, and is due to a broad range of emotional or physical illnesses.

The statement is made that in some organizations serious psychiatric disturbances account for illness rates equal to those of drastic surgical origin. While it is conceded that emotional disorders leading to absenteeism often have such occupational backgrounds as job dissatisfaction, insecurity, and conflict with other employees, the claim is made that disturbances to home, personality, or community situations are far more often at fault.

The pamphlet concedes that a properly conducted medical service can reduce illness absence, but it cites figures which indicate that the reduction achievable through this approach is less than one day per person per year — a less than spectacular possibility in the light of expected absenteeism rates normal to industry. The conclusion is reached that true reduction in total absenteeism will occur when, together, management, labor and industrial medicine allocate to the industrial medical service its proper functions of illness prevention and counselling service, and so enable it to help the worker achieve and maintain the highest level of physical and emotional well-being.

Copies of the pamphlet may be obtained by writing to the Occupational Health Institute, 6 East 39th Street, New York 16, New York.

## Products Man Succumbs

Egbert Moxham, Sr., president of Concrete Products, Inc., Brunswick, Georgia, Egbert Moxham, Sr., died recently at the age of 74. The company is one of the South's leading producers of materials for major construction projects.

# Everybody's Business

## THE HIGHWAY PROGRAM

- The recently-inacted public works bill has been widely heralded as the most ambitious program to construct new highways in world history, and as probably the most far-reaching single construction project ever undertaken. Under the program to which the nation is now firmly committed, in just a few years total annual spending on highways alone will unquestionably top the \$10 billion mark.

- This daring undertaking will have many far-reaching effects. Its primary objective is to create an interstate network of super-highways totaling more than 40,000 miles in length. It represents a too-long-postponed all-out effort to mend some of the more serious deficiencies in our entire highway system—deficiencies at least equally attributable to inadequate and unimaginative planning, and to the phenomenal increase in motor vehicle traffic.

- The highway program will certainly create and maintain countless thousands of jobs in the construction field, and among the important group of industries which supply equipment, materials and services to the construction industry. It seems entirely likely that as many as half a million skilled, semi-skilled and unskilled workers will be provided employment when the work actually gets under way.

- What about the effect of the program on the cement industry? Despite the fact that only about 2 per cent of the \$33 billion dollars of proposed expenditures will go for cement, it has been said that the cement industry will probably be the biggest beneficiary of the highway construction program. For that 2 per cent alone will account for about 20 per cent of the cement industry's productive capacity.

- It is being estimated that when the construction program hits high gear (probably not before 1960), it will increase the use of cement by 50 to 60 million barrels per year, or about as much as was used on all highway work in 1955. Total cement consumption last year was around 300 million barrels.

- How is this tremendous upsurge of highway construction likely to affect the ready-mixed-concrete industry? Judging from past performance, at the peak of the program the established ready-mixed-concrete industry can expect to market some 16 million cubic yards of its product annually for street and highway construction. This compares with an estimated 8 million cubic yards marketed for such purposes in 1955, when the industry's presumed total output was around 80 million cubic yards.

- With vigorous and imaginative merchandising, a factor conspicuously lacking in the past-performance figures, there is a distinct possibility that the ready-mix industry can increase its share in the highway construction program to 25 million cubic yards. Indeed, an increase of this magnitude seems almost essential, if the ready-mix industry is to maintain and solidify its position as the cement industry's No. 1 customer. In 1955 ready-mix producers accounted for about 35 per cent of the total shipments of the portland cement industry. If this ratio were no more than held, it would mean that of the estimated 50 to 60 million barrels of cement which the highway program will require at its peak, about 20 million barrels would have to be routed through the ready-mix industry. That quantity of cement would probably represent not less than 16 million cubic yards of concrete.

- Other branches of the concrete industries will of course also reap major benefits from the highway construction program. Precast and prestressed concrete, concrete masonry units and concrete pipe will be in tremendous demand for the thousands of appurtenant structures which an undertaking of this magnitude will unquestionably require.

## Texas Block Firm to Build Branch at Tyler

The block making firm of Dodds & Fountain, Greggton, Texas, has been incorporated under a new charter name, and will begin immediately an expansion program in the East Texas area, according to word received from J. C. Fountain, head of the company. The new name is Dodds & Fountain Building Products, Inc., and the first stage of the planned expansion program will be the construction of a branch plant at Tyler, Texas.

## Michigan Ready Mix Assn. Elects New Officers

At the 4th annual convention of the Michigan Ready Mixed Concrete Association, held at Lansing, the following new officers were elected:

President, Stanley Ernst, Ernst Fuel & Supply, Detroit; vice president, Donald Battjes, Battle Creek Gravel Company, Battle Creek; treasurer, Jack Winkworth, Winkworth Fuel & Supply, Detroit; secretary, J. Revell Hopkins, Lansing; and assistant secretary, Robert J. Fox, Lansing. These new directors were also elected: A. D. Dunlap, Ann Arbor Construction Company, Ann Arbor; Richard



## CRSI Award

● Dr. C. P. Siess (left) receiving the Concrete Reinforcing Steel Institute Award in behalf of Dr. N. M. Newmark and himself in recognition of their outstanding contributions in the field of reinforced concrete research. Professor H. J. Gilkey, award committee chairman, made the presentation at the 32nd annual C.R.S.I. meeting recently.

Foley, Michigan Foundation Company, Trenton; Lew Gaines, Catsman Company, Essexville; and Jim Gosson, Thomas E. Currie Company, Detroit.

Retiring president Frank Andersen, in his report to the membership, found cause for optimism in the outlook for the ready-mixed-concrete industry in the state. He noted that a 45 per cent population increase is predicted for the state by 1975, and he expressed the view that this would be accompanied by at least a 100 per cent increase in the demand for concrete. Mr. Andersen urged plant operators to look at their storage, handling and productive facilities with a critical eye, and to start now making the changes and improvements that will assure efficient operations in the years ahead.

## Featherlite Appoints J. A. Jones Manager



J. A. Jones

The Featherlite Corporation with plants in Lubbock, Midland, Abeline, Ranger, Strawn, and San Antonio, Texas, recently announced the appointment of James A. Jones as general manager of their San Antonio lightweight aggregate and lightweight concrete block plants. Mr. Jones formerly was with the Besser Company and Featherlite in Austin.

## ARBA Directory Of Highway Officials

The 1956 edition of the directory of "Highway Officials and Engineers," published by the American Road Builders' Association is available for distribution. The handbook contains more than 1,500 names, titles and addresses of administrative engineers and officials in the 48 State highway department and the District of Columbia as well as other useful information. The handbook is priced at \$1.00 per copy and may be obtained from the American Road Builders' Association, 600 World Center Building, Washington 6, D. C.

## Accident Severity Up Frequency Down

Workers employed by member companies of the National Safety Council had fewer accidents in 1955, but the ones they had were more serious. The average accident severity rate for all industrial reporting to the Council, based on the number of days lost per million man-hours, was 815 last year — an increase of 2 per cent.

## E. C. Petroskey Named Texcrete Sales Manager



E. C. Petroskey

Texcrete Structural Products Company, Dallas, Texas, has appointed E. C. Petroskey as sales manager, Jean F. Devine, vice president and general manager, has announced. The company, an affiliate of Texas Industries, Inc., produces precast concrete roof and floor channels and other concrete elements used in commercial and industrial buildings.

## ASTM Presents Award of Merit

Harrison Frederick Gonnerman, consulting engineer and research consultant, Oak Park, Illinois, received an award of merit from the American Society for Testing Materials in recognition of outstanding service, especially for standards and research work in Committee C-1 on cement and in the field of concrete, and for consistent support of other varied ASTM activities.

## Maule Industries President Resigns

M. F. Pafford, veteran of 23 years with Maule Industries, Inc., Miami, Florida, recently resigned as president after serving one year. He will be succeeded by Jose A. Ferre, who will retain his post as board chairman after assuming the presidency.

## Cement Assn. Forms Fire Research Section

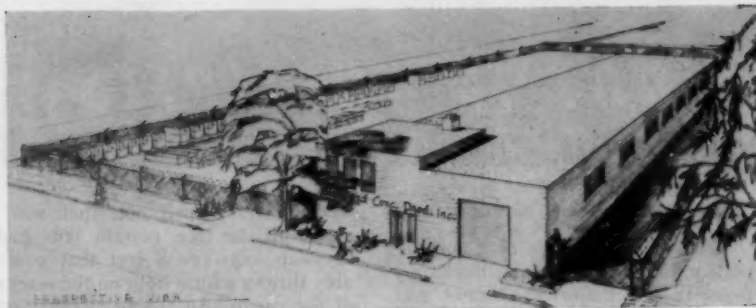
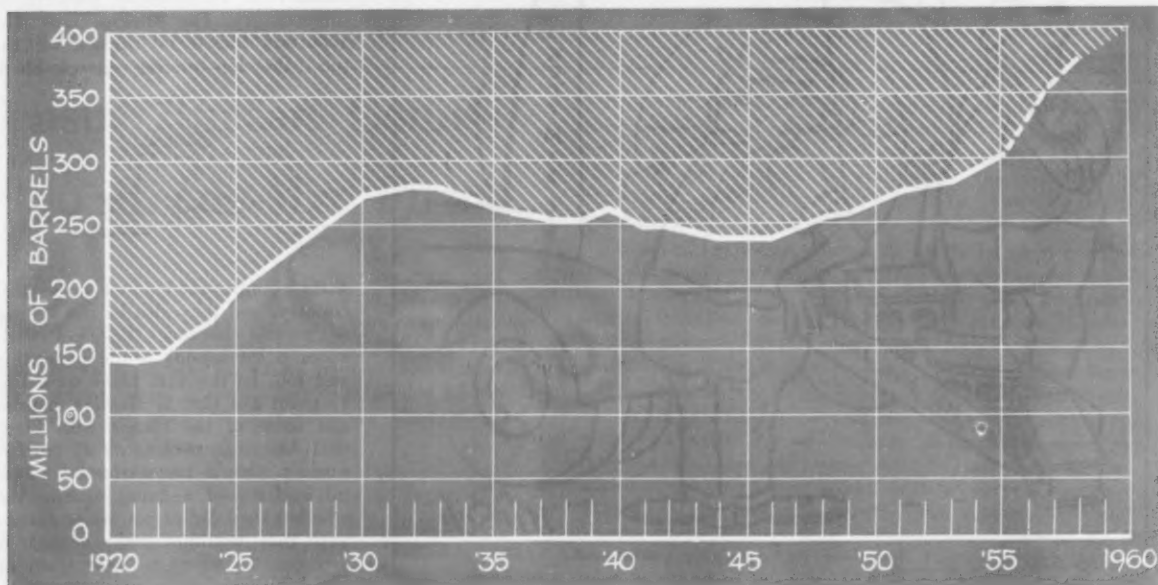
The Portland Cement Association has announced the formation of a Fire Research Section to be headed by Clifford C. Carlson. The new section, established within the research department of the association's Research and Development Division, will eventually be housed in one of two new buildings planned for construction at the organization's Research and Development Laboratories in Skokie, Illinois.

Mr. Carlson, formerly manager of the Products and Applications Section, Development Department, of the Association, is currently engaged in planning the new center. Together with a Structural Development Laboratory, the building is part of a \$1.8 million construction program aimed at providing facilities for the association's expanded research program on concrete structures and the fire resistance of concrete. Completion of the buildings is scheduled for 1957.

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## Cement Capacity Climbs

● The graph below indicates the capacity of the American cement industry over the past 35 years, with the steep dash line at the far right dramatically pointing up the tremendous increase that will result from expansion programs now in progress throughout the industry.



## New Products Plant

● Under construction in the outskirts of St. Louis is the new concrete products plant shown in the perspective view above. It will house the facilities of the 25-year-old Hereford Concrete Products organization. The company manufactures burial vaults, septic tanks, storm sewer inlets, window sills, precast steps, curb stone and similar items.



## Expanded Clay & Shale Assn.

● Pictured at the speakers' table during the recent midyear meeting of The Expanded Clay and Shale Association at Syracuse, New York, are (seated): R. C. Hardy, secretary-treasurer; Harold Anson, speaker; W. F. Atkins, president; and R. A. Utiger, vice president. Standing are Glenn Barnes, past president; T. R. Berger, executive secretary; George B. Southworth, speaker; and H. O. Pommer, chairman of the technical problems committee.



# NOT IN THE SPECS

## Thanks for Almost Nothing

The June 1956 issue of a contemporary publication contains the happy news that a majority of sand and gravel producers in Great Britain have determined to make an all out fight against inflation by agreeing to keep their prices at existing levels until June 30, 1956.

You've got to hand it to those Limey's—they just don't ever do anything half way!

## All Set in Burma

Anyhow, there's one place on the map that won't be afflicted with a cement shortage for a while. It's the port of Rangoon in Burma.

It all started when a Burmese purchasing mission went into the iron-curtain countries to close barter deals for surplus Burmese rice. Somebody relayed a rumor to the boys that their country had a huge construction program in prospect, and they decided (not without some logic) that portland cement would be a useful material to have around.

As matters turned out, that was about all the iron curtain lads had to swap anyway—a fact that probably throws a little light on the source of the rumor. According to latest reports, Rangoon's seven principal docks and their warehouses are glutted with bulk cement to such an extent that the entire port is paralyzed. Our informant notes that the monsoon season, with its five months of almost steady rain, is now in progress.

The only clear conclusion we can draw from this sad story is that when and if the Burmese get around to their construction program, they'll probably still need cement. We would also guess that almost any day there might develop a lively demand for jackhammers along the Rangoon waterfront.

## Patty Cake, Patty Cakel

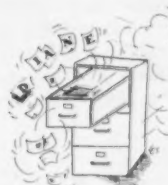
A Pittsburgh firm has adopted piggy-back delivery, a transportation technique involving carrying loaded trucks on railroad flat cars, for sup-

plying ready-mixed concrete to a paving job. Guess there's no point in telling them *now* that plastic concrete has some fairly serious deficiencies as a long-haul material. Well, everybody has to learn.

## Our Press

In its lackadaisical way, this department has tried from time to time to record the notices, both good and bad, which concrete receives from the daily press. The following two items, neither of them of particularly recent origin, are alike insofar as they do not add to, or subtract much from, the over-all lustre of our material:

Back in 1950 an insurance company erected a one-story concrete building near Newark, New Jersey, for safe keeping some two million



punch card records. It worked just fine until Hurricane Diane came along and whisked away the building and the records. We can ease our anguish over this one, of course, by pointing out that if they ever catch up with the building they'll probably find the records intact.

Finally, there's that below-the-belt swat we took from the Russian housing officials who recently inspected a number of construction projects in this country. The Moscow lads told reporters they'd be thrown off the job if they left interior concrete block



surfaces unfinished as we do in this country, and they also let out a howl of protest because they got their shoes a bit muddy while inspecting one job. In the first place we'd like to point out that if Russian masons did some of the things with block that American masons do all too frequently, they'd unquestionably wind up in front of a firing squad. And whether they did or not, we're darned sure they wouldn't make enough in any case to afford to wear shoes on the job.





## ASTM Elects New Officers

The American Society for Testing Materials elected a new slate of officers at its 59th annual meeting in Atlantic City, New Jersey. Rudolph A. Schatzel, Rome Cable Corporation, was elected president and Kenneth B. Woods, head of the School of Engineering and director of the Joint Highway Research Project, Purdue University, was made vice president.

The following were elected to serve on the board of directors for three years: Miles N. Clair, The Thompson & Lichtner Company, Inc.; Howard C. Cross, Battelle Memorial Institute; George H. Harnden, General Electric Company; R. R. Litehiser, Ohio State Highway Testing Laboratory; and Charles R. Stock, American Cyanamid Company.

## Appoint Director of PCA Fellowship



F. D. Ordway, Jr.

Hubert Woods, director of research for the Portland Cement Association, has announced the appointment of Dr. Fred D. Ordway, Jr., as director of the PCA Fellowship at the National Bureau of Standards, Washington, D. C. The Fellowship operates as

an integral section of the research department of the Portland Cement Association. It employs a staff of scientists in the Washington, D. C., laboratories of the National Bureau of Standards, who are engaged in basic research on the constitution and properties of portland cement.

## New York Assn. Elects Officers

At the fifth annual meeting held in Elmira, New York, the Empire State Sand, Gravel and Ready Mix Association elected the following officers and directors for the coming fiscal year. They are: president, Edward J. Nunan, Buffalo Slag Company; vice president, John B. Hopkins, Albany Gravel Company, Inc.; secretary, Harold Keahon, Keahon Bros., Inc.; and treasurer, R. M. Burgess, Mohawk Valley Concrete Company, Inc.

Elected to serve as directors are: Sam Cataline, Evans Builders Supply Company; Frank D. Cooney, Jr., Cooney Bros., Inc.; John C. Cushing, Cushing Stone Company, Inc.; Douglas M. Dalrymple, Dalrymple Gravel & Contracting Company; Harold A. Putnam, Putnam-Hawley Building Materials, Inc.; Joseph Gentile, Pittsburgh Testing Laboratory; J. P. McCullough, Central Materials Corporation; J. C. McIntosh, McIntosh Transit Mix Concrete Company; James F. Murphy, Gallagher Bros. Sand & Gravel Corporation; Henry H. Kirwin, Eastern Rock Products, Inc.; and George Van Epps, Rumsey-Ithaca Corporation.

## NCMA's Bill Markert Addresses Florida Assn.

In a speech before the Florida Concrete and Products Association in St. Petersburg, Florida, William P. Markert told of a new field of study concerning the consumer's *real* reason for buying or not buying and its application to advertising.

Mr. Markert, director of promotion of the National Concrete Masonry Association, pointed out that this new study, motivation research, has an important bearing on consumer attitude toward the block industry. He pointed out that in many cases the public tends to associate block with poorly designed and constructed homes and commercial buildings. At present the NCMA is trying to educate the public to the use of concrete block through advertising in mass consumer magazines.

## California Block Makers To Promote Product Uses

Although continuing its research and testing program, the Concrete Masonry Association of California is going to concentrate more on promoting the many uses of concrete block this year, according to Pete Muth, newly elected president. To guide the new program Mr. Muth appointed Jay Lyon, sales manager of General Concrete Products Company, to the position of chairman of the association's public relations committee.

## Census Bureau Counts 1996 Ready-Mix Firms

A preliminary trade report issued by the Bureau of the Census indicates that at the end of 1954 there were 1,996 establishments with paid employees in continental United States primarily engaged in selling ready-mixed concrete. Sales of ready-mixed concrete businesses totaled \$1.0 billion during the year or approximately \$501,000 per annum per establishment.

States recording the largest dollar volume of sales in 1954 were California, New York, Illinois, Texas, Ohio, Michigan, and Pennsylvania in the order named, each with annual sales of \$40 million or more. Together, these seven States reported sales totaling \$538.2 million, or more than one-half of the total for the country as a whole.

Ready-mixed-concrete establishments reported 35,547 paid employees as of mid-November 1954. Annual payroll amounted to \$153.7 million for the year 1954, or 15.3 per cent of sales. In addition to the 35,547 paid employees, 866 proprietor-owners of unincorporated firms were actively engaged in the trade.

Operating expenses, including payroll but not withdrawals for compensation of proprietor-owners of unincorporated businesses, nor cost of goods sold, amounted to \$315.3 million during 1954, or 31.4 per cent of sales. Stocks on hand for sale at the end of 1954 were valued (at cost) at \$32.6 million or 3.2 per cent of annual sales.

The report covers establishments in the United States which engaged the services of one or more employees on a payroll basis and which were primarily engaged in transit-mixing and delivering ready-mixed concrete. Establishments producing, as well as those purchasing, their aggregates are included. Distributors without paid employees and those selling ready-mixed concrete as a secondary line are not included. Copies of the report may be obtained by sending 10 cents in coin to Bureau of the Census, Washington 25, D. C.

# Where Concrete Is King

***What are the elements that make it possible for one organization to account for about 60 per cent of the total concrete business in a large consuming area?***

***Here are some answers.***

**I**N the state of Florida, CBS doesn't stand for the Columbia Broadcasting System as it does almost everywhere else; in Florida, it means Concrete Block Stucco. Concrete flourishes throughout Florida as easily and rapidly as bathing suits, orange juice and stands for marketing the world's longest hot dogs. Figures from the Federal Housing Authority show that a mouth-watering 90 per cent of loans currently being insured in that state are for concrete masonry houses.

One official of a south Florida ready-mix company reports blandly: "We don't have to *sell* concrete down here. People just don't think of anything else." Here, then, is an area in which concrete is not only chosen overwhelmingly but almost exclusively. In such a happy situation for concrete producers, there must be some lessons to be learned for products manufacturers and ready-mix operators elsewhere in the United States, who are up against a constant struggle to win recognition for concrete as a suitable above-ground architectural material.



F. P. Anderson

In an effort to discover if there is any common denominator in Florida which might be applied to the solution of concrete marketing problems elsewhere, we sought out the largest concrete producer in this land of concrete plenty — Maule Industries of Miami, Ft. Lauderdale and South Dade County. Here we put our questions to F. Paul

Anderson, Maule's vice-president for new products. His answers, along with some other facts and figures turned up on the Florida concrete boom, have significance to concrete producers everywhere.

Maule Industries grosses about \$25 million a year in concrete and allied products. They operate some 12 high production block machines, as well as about 175 radio-equipped ready-mix trucks, and do about 60 per cent of all the concrete business in their area, which extends south to the Florida Keys, north to Boca Raton, and east and west to the ocean and gulf which lap at either side of the south Florida peninsula.

A visitor to Maule Industries can quickly spot one large reason for concrete acceptance in Florida. The new Maule office building on north Biscayne Blvd. in Miami is a startling example of the versatility and wide range of effects possible in concrete. The visitor may quarrel with the architecture but not with the imagination used in the application of concrete — a quality notably lacking in many northern states.

Mr. Anderson is a rotund gentleman of almost unlimited geniality, as he can well afford to be in view of the almost unlimited market for

his product. Maule's problems, according to Mr. Anderson, are more in the mechanical than in the sales promotion line. For example, all of their quarry rock comes from under water. After the overburden is stripped, they're down to water. They quarry with drag lines and drain the rock at the surface before processing it in hammer mills. Presently vexing Maule officials is one of their largest quarries, which is just about dug out. To remedy this, Maule recently took delivery of a dredge which will enable them to go down another 20 feet beyond the 30 foot level already reached.

"Florida," points out Mr. Anderson, "is 150 miles wide, 350 miles long, and 3 feet high."

But how did Florida concrete reach the happy position in which sales promotion effort is today almost unnecessary? Mr. Anderson's answers to this question, corroborated by contractors, builders, realtors and others in the Miami area, resolve themselves into two general groups. Although the first are mostly peculiar to south Florida, they deserve consideration for a better understanding of the situation there as well as for whatever limited application they might have in other areas. These factors would include:

- Maule's new office building on Biscayne Boulevard in Miami is probably one of the outstanding concrete masonry structures of its kind in the country. In addition to providing comfortable headquarters for the company's far-flung business activities, the building constitutes a persuasive demonstration of what can be done with Maule products.

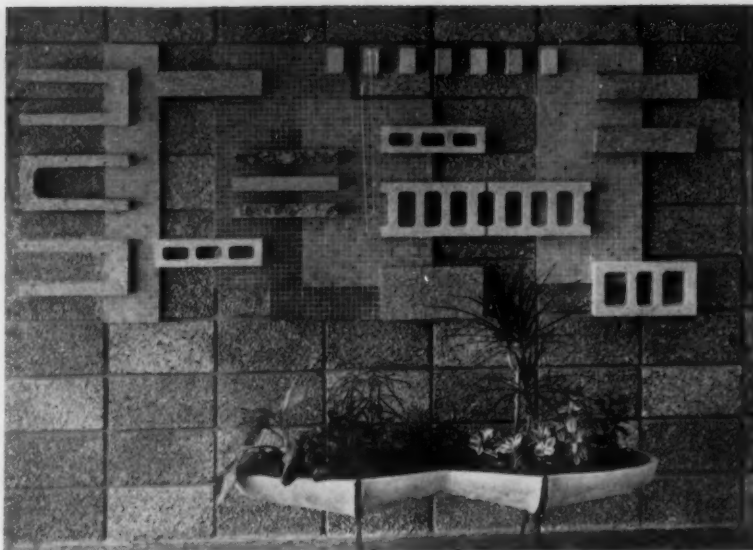


1. Availability of materials — Clay products have to be shipped into Florida, making them quite expensive. Much lumber also has to be imported from the Carolinas; but an even more potent argument against wood is its susceptibility to termites, rot, fungus — and fire. Concrete, on the other hand, can be made of plentiful native materials. The corollary to this, of course, is the lower cost of concrete construction in most instances.

2. Rapid growth in population — The population of Florida has almost doubled in the last fifteen years, and in the face of such growth there is bound to be a tremendous demand for new construction. Concrete has managed to siphon off most of this demand. Nowhere else is there such a spectacular population gain; but almost every urban area is growing today and offering these same building opportunities.

3. Adaptability of concrete to meet climatic problems — Florida is subject to certain adverse elements which concrete is peculiarly adapted to resist. For example, concrete construction is the best possible for hurricane winds. It is extremely durable in the warm, moist salt air of Florida.

4. Substantial number of existing concrete homes — Following the remarkable performance of concrete homes during the famous Florida hurricane of 1926, there was a rash of concrete building which has never subsided. Nothing succeeds like success, and the preponderance of concrete homes in south Florida has



● This mural-like decorative panel in the vestibule of Maule's new office building consists of various types and sizes of building units produced in the company's plants in the Miami area. The wall units themselves provide an example of exposed aggregate work.



● ABOVE: Long years ago the company conceived the idea of developing into a veritable department store for concrete users. Today its various plants turn out almost anything that can be made of concrete and for which there is a substantial demand.

● BELOW: View in the storage yard of Maule's large block plant at Ojus. The company operates twelve high-production block machines in all, and probably turns out more 8-inch equivalent units than any concern in the world.





beyond doubt been a large factor in influencing people to build more and more concrete structures.

5. Ample supply of skilled labor — Florida offers many advantages to the concrete mason. In addition to the sunshine and low-cost-of-Florida living, he can find year round employment here as well as a satisfactory place for retirement. Consequently, there has long been a plentiful supply of skilled workmen in the concrete trades available in Florida. (They also work much more speedily than in other sections of the country, thereby increasing efficiency and lowering construction costs.)

The above entries on the credit side of the ledger for concrete producers in Florida happened without any particular effort on the part of the concrete industry. Without doubt this is a fortunate climate, literally and figuratively, for concrete, and insofar as these circumstances can't be duplicated elsewhere, there is little that concrete men can do about them in other sections of the country. But there are other factors in the Florida concrete boom which can be imitated elsewhere.

1. Diversification of concrete products — Says Mr. Anderson: "We'll make almost anything an architect wants in order to express himself in concrete."

A look at the new Maule building in Miami bears out this assertion. It makes use of almost every conceivable size and shape of precast



● ABOVE: Closeup of one of the large exposed-aggregate panels Maule produced recently for a Sears Roebuck store in Coral Gables. BELOW: For years this company has done an effective job of displaying its products at local home shows. Management believes that this policy has been an important factor in its growth.





concrete product, including a striking new unit — designed by Mr. Anderson — in which colored aggregate is used and the surface cement is sand-blasted off, exposing the brightly-colored stone. Although the strong favorite among concrete masonry units is still the 8- by 8- by 16-inch block (it accounts for about 85 per cent of Maule's unit volume), the remaining 15 per cent is accounted for by some 75 or more decorative types of concrete brick, block and stone. Thus the conventional argument in the north against the drab appearance of concrete is circumvented in Florida through striking new forms, as well as the wide use of stucco to cover the standard block. And the Florida variety in concrete doesn't limit itself to block and brick units. Almost all of Florida's concrete homes use concrete roof tile, concrete floors on ground and pre-cast window and door frames.

2. Good performance record of concrete — Conditions are ideal in south Florida for excellent concrete performance. Humidity is on the high side and rather constant; temperature ranges are quite moderate; because buildings seldom have to be heated, there are relatively few cycles of heating and drying out; and the sandy soils have better-than-average bearing qualities. All of these things, plus a number of the elements noted in the first group, make concrete perform better in Florida. But there is a lesson to be learned here for concrete producers everywhere: e.g. good performance means more concrete usage in your community as well as in south Florida.

Producers elsewhere may have to work harder to attain this good performance. For example there is relatively little cracking of concrete block in Florida, even though most block are neither dried before they are laid nor protected against wetting on the job. These conditions which are handed to Florida producers on a silver platter don't come so easily in other areas. But however difficult they may be to attain, the pay off is inevitably a healthy broadening of markets for concrete. Nowhere is this better illustrated than in Florida, where good performance has played a very large part in making concrete almost a universal building material.

3. Expansion of plant facilities — A concrete boom of the size of that in Florida would have been impossible and quite likely would have died a-borning had not concrete producers kept pace and even outrun the constantly growing demand for



● View of one of the five crushing plants in which Maule produces aggregates for its own operations as well as for general sale. The material is oolitic limestone.

ready-mix and concrete products. In the past 15 years, block production in Florida has increased by more than 25 times — or about five times as much as for the nation as a whole. It's difficult to say whether the increasing demand for the product was responsible for expanding production facilities, or whether aggressive selling of the dynamic growth in supply created new demand. But the fact remains that the demand for concrete and the facilities to supply this demand have grown together, complementing each other to produce the veritable monopoly concrete enjoys in south Florida.

4. Mass production building methods — Florida builders have applied mass production building methods to concrete much as builders in the north mass-produce frame and brick structures. As large concrete building projects increase, costs come down, speed goes up and concrete continues to improve its competitive position. Unfortunately, the reverse is true in many areas of the north where concrete has been forced to remain in the back seat.

5. Education of the buying public by exposure — The greatest selling point for new concrete structures in south Florida has been the number of concrete buildings already there. The public loves to go along with a winner — already tried and tested. Thus it would appear that one of the most effective ways of making a concrete impression in less favorable areas is to work closely with large-scale builders who can expose concrete to public attention in a rather

formidable display. Such recognition isn't easy to get, nor can cooperation in such a project be sought and found without difficulty. The first time may not be a financial bonanza for the concrete producer, but education of the public by exposure to concrete structures is an almost necessary prelude to expanding concrete markets.

As Mr. Anderson pointed out: "Concrete block houses stand out as something different and unusual up north, while down here anything else stands out the same way."

Thus it has been conclusively demonstrated in Florida that home owners in large numbers — representing the wide cross-section of people who settle in Florida — can be educated to prefer concrete homes. It can happen elsewhere, too.

"But," adds Mr. Anderson, "concrete producers in other areas of the country will first have to overcome an inertia of many years standing. We were lucky enough to have some pretty good breaks in building the huge market for concrete here. Producers in other parts of the country will have to make many of these breaks themselves."

Mr. Anderson's words were unconsciously underscored by the operator of a Miami motel. All motels in the Miami area are CBS — concrete-block-stucco. When I asked our motel owner how he liked concrete block, he just looked puzzled. Finally he asked quizzically, "What else is there?"

Which is just about as good as things can get — anywhere.

**If you are currently operating your business as sole proprietor or as a partnership, the chances are you should give some thought to . . .**

## ***Incorporation and Tax Savings***

By HAROLD J. ASHE

**I**F the net earnings of a business are substantial, its owner or owners may be warranted in incorporating as a legitimate means of reducing the Federal income tax bill. Income, both at the corporate and individual level, is subject to a Federal tax. This "double taxation", as it is commonly called, has created considerable confusion and misunderstanding in the minds of owners of non-corporate businesses, including concrete products manufacturers and contractors.

Too often the act of incorporation is viewed as a booby-trap luring the unwary with resulting double tax bills, one for corporation earnings, the other on individual income. This is, in fact, a possibility. However, the 1954 Internal Revenue Code permits partnerships and proprietorships to report as corporations. This re-emphasizes the fact long known in tax circles that operating as a corporation (or now reporting as such) has certain inherent tax advantages — under the right set of conditions.

Necessarily, an article such as this can only outline the general principles involved and explore the possibilities. It is not offered as a substitute for expert counsel applied to the particular situation of a specific contractor or manufacturer, nor should it be so used. No step toward incorporation — or electing to report as such for tax purposes — and with possible tax savings in mind should be taken except with the aid of tax counsel armed with all of the facts and circumstances surrounding the taxpayer's business.

To understand how tax savings are possible through incorporation, certain aspects of taxation as applied to corporate and individual earnings must be kept in mind. These include the following basic facts:

1. All earnings of a non-corporate business are subject to individual income taxation to the individual or individuals owning the business, in proportion to their interest in the earnings — *and regardless of whether all earnings are withdrawn.*

2. The individual tax rate increases rapidly, reaching a rate of 91 per cent.

3. The corporation tax rate, usually referred to as 52 per cent, actually is 30 per cent on the first \$25,000 of corporation income, with the rate being 52 per cent above that figure. Therefore, even for corporations earnings substantially more than \$25,000, the effective tax rate is considerably less than 52 per cent.

4. While the corporation rate applies to corporation earnings, the individual tax bill is assessed only against distributed corporation earnings, so that double taxation may take only partial effect, and with the combined corporation and individual income tax less than the individual income tax alone on the earnings of an unincorporated business.

The foregoing presupposes that a taxpayer's business earnings are running well ahead of his personal needs; that he is plowing back some earnings into the business; that there is a continuing need for growth and expansion; and, finally, that the individual tax rate on the top layer of income is considerably higher than the corporation tax rate.

While the penalty surtax on unreasonable accumulations of earnings continues in effect in the new Code, it is not as severe as it was in the past. In no event may the penalty tax be applied on the first \$60,000 of earnings accumulated over the years. Now the penalty may be assessed only on the amount in excess of this figure. In the past the penalty applied to the entire

amount. The Commissioner of Internal Revenue must prove the unreasonableness of the accumulation. By definition unreasonable accumulation must exclude those accumulations made for "reasonably anticipated needs." Thus, future needs, as well as present ones, may justify accumulation of earnings, such as planned expansion, anticipated in the light of events.

Let's consider a few examples to illustrate the possible tax value of incorporating.

Case A. This is a ready-mixed-concrete producer operating as a sole proprietor, earning \$35,000 a year. He is married, has two children, takes the standard deduction, and files a joint return. His income tax is \$10,212 at 1954 rates. The top layer of his income is in the 47 per cent tax bracket. He has rather consistently plowed back about \$15,000 a year into the business, and would put more in, except for high individual tax rates.

What happens if he incorporates? As executive head of the corporation he draws \$15,000 salary. Corporation earnings thus are \$20,000. These earnings are not distributed. The corporation tax is \$6,000 (30 per cent of \$20,000). His individual tax on \$15,000 is \$2,612. The combined tax is \$8,612, for a tax saving of \$1,600.

Tax savings are even more dramatic in higher brackets of business earnings. Consider another example.

Case B involves a concrete products manufacturer, also a sole proprietor. His net earnings are \$60,000 a year. He is married, has two children, takes the standard deduction and files a joint return. His individual income tax is \$24,333. The top layer of his income is in the 62 per cent tax bracket.

(Turn to page 32)

*Despite the rash of adverse rulings against concrete plants in questions related to zoning, the owners of such plants have certain well defined rights under existing zoning laws. This article cites several recent court decisions which tend to clarify some of the issues involved.*

## OWNER'S RIGHTS UNDER ZONING LAWS

By ALBERT WOODRUFF GRAY

Land in Los Angeles, California, was leased by the Pacific Electric Company to the Livingston Rock & Gravel Company in the winter of 1950. Under a county zoning ordinance this land was available without restrictions for any building, structure or improvement that might be erected.

On the land under this lease it was planned to construct a batching plant for the loading of ready mixed concrete trucks. By the 21st of the following March the building had been completed and the trucks were in operation. On that date the land was rezoned, and nine months later the company was notified by the planning commission that its right to operate had been revoked.

In a suit by the plant owner an injunction was granted prohibiting the enforcement of this ordinance, and the county appealed. In its decision on the appeal the Supreme Court of the state said of the rights of the plant owner:

The Fifth Amendment to the Constitution of the United States reads in part, 'No person shall be deprived of property without due process of law' The Fourteenth Amendment to the Constitution of the United States is to the same effect and a similar provision appears in the Constitution of the State of California.

The foregoing constitutional provisions protect these plant owners in their vested property rights, to conduct the lawful business in which they were engaged prior to the time the property on which their plant is located was placed in an M-1 zone.

It is apparent at the time these plant owners erected their plant, made their investment in equipping it and commenced to use it, that its operation was perfectly legal, which fact was recognized in the urgency ordinance of the county. It is likewise obvious that these plant owners had a vested property right in the operation of their plant of which they could not be constitutionally deprived without due process of law which presupposes the plant owners be awarded a fair and reasonable compensation

for the property rights of which the county was attempting to deprive them.

The authority for this decision had been established over twenty years before by the Supreme Court of that state. In that instance an ordinance had been passed by the City of Los Angeles making it unlawful inside of certain prescribed areas "to erect, establish, operate, maintain or conduct any hospital, asylum, sanitarium, home retreat or other place for the care or treatment of insane persons," with a penalty of fine and imprisonment for a violation.

On this land at the time this ordinance was adopted were four sanitariums. In forbidding the enforcement of this ordinance against these institutions for their failure to conform to that zoning restriction the court said of the application of zoning laws to businesses already functioning when the ordinance is adopted:

We are asked to uphold a municipal ordinance which destroys valuable businesses, built up over a period of years. If we do so on the ground that this is the proper exercise of the police power in the enactment of zoning legislation, then it follows that the same thing may be done to apartment houses, flats or stores.

The establishment of many lawful and not dangerous businesses in a city would then become an extremely hazardous undertaking. At any time in pursuance of a reasonable plan for its future development the city could prohibit the continuance of the businesses and make property valueless which was previously constructed and devoted to a useful purpose.

It may well be that in the course of years one of the outlying permitted districts in the present scheme will become residential in character. If these businesses at great expense reestablish themselves in that district they might be pursued and again eradicated. All this is to be justified under the police power as a proper taking of private property for public use without compensation. The approval of such a doctrine would be a blow to

rights in private property such as this court has never before witnessed. Only a paramount and compelling necessity could sanction such an extraordinary interference with useful business.

Then to this statement of the law the court added a survey of the limitations beyond which zoning laws may not go:

It would seem at first glance that the zoning decisions of the courts reach the conclusion that businesses may be prohibited in the sense of being excluded from specific districts. An examination of these decisions however reveal the fact that nearly all of them deal with the attempt to establish businesses in the prohibited areas.

They decide nothing more than that the right to engage in a lawful and not dangerous business may be taken away in pursuance of a reasonable zoning scheme. They do not decide that an established and not dangerous business operating in a lawful manner in a certain territory may be eradicated in pursuance of a reasonable zoning scheme.

As a matter of practice, also, those who have drafted ordinances have usually proceeded with due regard for valuable vested property interests and have permitted existing non-conforming uses to remain.

Zoning holds that an ounce of prevention is worth a pound of cure and that it is fairer to all concerned to prevent the establishment in residence districts of objectionable business than to drive them out once they are established. Zoning looks to the future, not to the past, and it is customary to allow businesses and buildings to remain although of a class which cannot be established.

It by no means follows however that a business not conforming to the adopted ordinance but permitted to remain under the sanctions of the Federal and state constitutions, continues unaffected by such an ordinance.

In another instance in that state heavy industrial activities, heavy machinery and plants operating machines up to 2,000 horsepower were



located on property that had become subject to another zoning ordinance. This ordinance restricted portions of the area to residential use permitting these businesses already established to continue.

One of them, however, in addition to the business conducted in the past, constructed four 12,000-gallon gasoline tanks, and court proceedings were brought to compel their removal on the ground that they did not conform to this zoning ordinance. The ordinance read in part:

The lawful use of land existing at the time of the passage of this ordinance, although such use does not conform to the provisions hereof, may be continued. If such non-conforming use is discontinued, any future use of said land shall be in conformity with the provisions of this ordinance.

In requiring the removal of the tanks, the court said:

Such a provision is ordinarily included in zoning ordinances because of the hardship and doubtful constitutionality of compelling the immediate discontinuance of non-conforming use. The object of such a provision is the gradual elimination of the non-conforming use by obsolescence, or destruction by fire or the elements, and it has been frequently upheld by the courts.

There is a growing tendency to guard against the indefinite continuance of non-conforming uses by pro-

viding for their liquidation within a prescribed period. Given the objective of zoning to eliminate non-conforming use, the courts throughout the country generally follow a strict policy against their extension or enlargement.

Zoning ordinances that have been held unreasonable and invalid were recently catalogued by a court as of four types; first, those which seek to exclude existing and established businesses; second, where a restriction imposed by the ordinance creates a monopoly; third, where the use of adjacent property renders the land entirely unsuited or unusable for the only purpose permitted; and fourth, where a small parcel, as a lot in the center of a commercial district limited to a residential use, is given less rights than the surrounding property.

One further feature of importance in determining the limits on such zoning restrictions is in the insistence by the courts that the exemption of the property for a non-conforming use, must be for a real, not a merely anticipated use. An Ohio court recently had this to say:

It appears that the general rule of law in this country is that in order to secure a vested right for a non-conforming use, the use itself or at least some portion of it must have been in actual existence upon the

effective date of the zoning legislation. Contemplated use of the premises is not sufficient to establish a vested right.

In a decision by the United States Supreme Court that has become famous as an authority of the law governing the application of these zoning principles, Justice Holmes said:

The protection of private property in the Fifth Amendment presupposes that it is wanted for public use but provides that it shall not be taken for such use without compensation. A similar assumption is made in the decisions upon the Fourteenth Amendment. When this seemingly absolute protection is found to be qualified by the police power, the natural tendency of human nature is to extend the qualifications more and more until at last property disappears.

But that cannot be accomplished in this way under the Constitution of the United States. The general rule, at least, is that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.

"In general it is not plain that a man's misfortunes or necessities will justify his shifting the damages to his neighbor's shoulders. We are in danger of forgetting that a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the constitutional way of paying for the change."

## Tax Savings

(From page 30)

He incorporates, draws \$20,000 salary, making corporate earnings \$40,000, none of which is distributed. His corporation tax is \$15,300 (30 per cent on \$25,000 and 52 per cent on \$15,000). His individual income tax is \$4,124. This tax with his corporation tax totals \$19,424 as against \$24,333 operating as a sole proprietor, for a tax saving of \$4,908.

Next, consider the tax results of incorporation on partnerships. Case C consists of two members. Net earnings are \$50,000, credited equally between partners. Each partner is married, has two children, takes the standard deduction and files a joint return. Each partner pays an individual income tax of \$5,888.

Suppose these partners incorporate, with each drawing a salary of \$12,500 a year. This results in corporate earnings of \$25,000. The corporation tax is \$7,500, or \$3,750 for each erstwhile partner. Each partner's individual income tax on his salary is \$1,966. Combined tax of each partner is \$5,516, or a tax saving of \$372. In this case there

is not too much tax-saving in favor of incorporation.

On the other hand, tax savings may be even more spectacular in the case of single persons having the same net earnings as in the foregoing examples. This is because the same income will be in higher tax brackets due to inability to split income. As an example, consider Case A as unmarried and without dependents, using the standard deduction. His individual income tax on \$35,000 net earnings will be \$15,370, with the top income layer in the 65 per cent tax bracket. If he incorporates, and draws \$15,000 salary, not distributing the \$20,000 of corporation earnings, his individual income tax will be \$4,002. This with the corporation tax of \$6,000 will total \$10,002, for a tax saving of \$5,368.

A good many contractors and manufacturers in the industry may be considering availing themselves of the right to report as a corporation for tax purposes without formally incorporating. However, there is a catch in this provision of the law. Once the election to report as a corporation is exercised a taxpayer may not revoke his decision unless there is at least a 20 per cent change

in ownership. On the other hand, a legal corporation may make the change by dissolving the corporation and reverting to a sole proprietorship or partnership.

Thus, becoming a corporation in fact will confer all of the possible benefits offered by the tax code in respect to partnerships and sole proprietorships reporting as corporations, without, however, putting a closely-held business in a straight-jacket from which there is no easy escape route.

One thing needs to be stressed in connection with incorporating or reporting as a corporation. The Internal Revenue Service continues to frown upon the old device of paying excessive salaries to reduce taxable corporate earnings. Likewise, the practice of paying gratuities as salaries to family members who perform little or no services is carefully watched.

Incorporation should not be entered into hastily or without expert counsel provided with all of the pertinent facts. Neither, however, should incorporation be rejected if all of the facts point to tax savings as well as other advantages found in this form of doing business.



# Ohio Ready Mix Assn...

*hears Vincent P. Ahearn discuss  
the industry's record 1955 production  
and the critical cement situation*

A NEW SLATE of officers was elected by members of the Ohio Ready Mixed Concrete Association at the organization's annual convention in Cleveland, Ohio. George J. Frye, Dayton Builders Concrete Company, succeeded Charles O. Dittrich, Hilltop Building Materials, Inc., as president. Roger H. Slugg, Hamilton Gravel Company, became vice president, and Ralph H. Anderson, Anderson Concrete Corporation, became treasurer.

The program highlight of the two-day meeting was an after-luncheon address by Vincent P. Ahearn, executive secretary of the National Ready Mixed Concrete Association. Mr. Ahearn briefly reviewed some of the significant findings in the association's thorough study of the ready-mixed-concrete industry's output in 1955 (see CONCRETE, July 1956, page 30).

Mr. Ahearn noted as particularly significant the survey finding that home builders, who bought more

than 21 per cent of the total output of ready-mixed-concrete last year, were by a considerable margin the industry's most important customers. He also pointed out that a vast potential use of ready-mix exists in the field of street and highway paving.

Mr. Ahearn also briefly reviewed the cement shortage picture as indicated by a recent survey conducted by the national association. A detailed account of these findings will be found elsewhere in this issue.

At another point in his address Mr. Ahearn touched on the broad problem of the ready-mixed-concrete industry's public responsibility. He especially deplored the fact that some companies operate trucks that are eyesores, thus, offering constant incentive for restrictive legislation of one sort or another.

Looking to the future, Mr. Ahearn expressed the view that the most important news of the moment, so far as the ready-mix industry is con-

cerned, is the fact that the population of this country is gaining at the rate of 250,000 people per year. The inevitable suburban development, and home-, school-, and shopping-center-construction activity that must accompany such a population growth, in Mr. Ahearn's opinion, can only spell vast opportunities for the future growth of the ready-mixed-concrete industry.

The Cleveland meeting also featured talks by Robert Mitchell, president of NRMCA; W. J. Corr, Mack Manufacturing Company; F. S. Baster, The White Motor Company, and Roger H. Slugg, Hamilton Gravel Company.

## Review Fire Data on 2- and 3-Core Block

A new technical bulletin prepared by the National Concrete Masonry Association presents a review of available data on the fire endurance of concrete masonry obtained in actual fire tests on eight-inch walls built with two-, three- and four-core units, and of the design requirements for concrete masonry units included in the various standard building codes. Conclusions drawn from these reviews and presented in the report are:

1. For a given concrete, and for units having the same equivalent net solid thickness, the fire endurance of concrete masonry walls of the single-unit type will be the same for walls built with units of two-core design as for walls built with units of three-core design.

2. It is an accepted engineering practice to award concrete masonry walls built with units of two-core design the same fire resistance rating as walls built with units of three-core design where the units and the wall constructions are the same in all other respects.



● New officers of the Ohio Ready Mixed Concrete Association are R. H. Anderson, treasurer, Roger H. Slugg, vice president, G. J. Frye, president, and Claude Clark, executive secretary.



● Past presidents of the Ohio association received framed certificates at the recent Cleveland meeting in recognition of the importance of the services they have rendered to the group.



# THE BILLION DOLLAR MOTEL BUSINESS

*This article summarizes  
the factors that make  
this rich market for  
construction materials  
a natural target for  
the block industry*

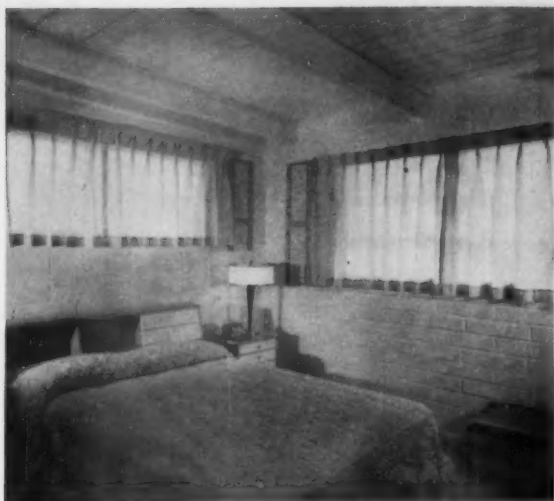
By EILEEN MALONEY

**N**ext week a hundred motels will be built, 60 will be remodeled, 300 will be planned. Half of them will be using concrete block. This Cinderella of construction is appearing for company — lots of it — in many of the 60,000 motels strung along the highways of this country. Dressed for the ball, block is used for lobbies, interiors, and eye-catching exteriors. It lines driveways, surrounds plants, graces a fireplace equally well; yet underneath it is still the strong, fire-proof, economical block people used to hide in the basement.

There are now twice as many motels as hotels in the United States, and they are multiplying at the phenomenal rate of 2600 a year, with no end in sight. They are even invading the city now, formerly the hotel's exclusive territory, offering economy and parking space to the traveler. The business has doubled since 1946, and with the advent of the big new state and national highway construction programs it promises to continue increasing in the future. Right now, over eighty per cent of vacation travel is done by car; the more automobiles there are on the road, the more important the motel becomes.

Nor is this expansion solely the result of new motels entering the market. A large percentage of the construction being done is in building additions to existing motels. And as the business grows, prospective owners are becoming increasingly astute about building. All want something versatile, long-lasting, economical, that combines well with other materials and is fireproof, weather-proof, and attractive. Many have discovered that concrete block, perhaps alone among major building materials, can meet this demanding specification.

Many motel operators, however, have yet to be sold on concrete block. Even though some chains are venturing into the field, the majority of motel owners are new to the business and know almost nothing about construction. They are eager for information; the strange part is that no one seems willing to give it to them. A major complaint of the owners is that they must usually make the first move in buying. Frequently, having to rely on their own judgment, they stick to the things they are most familiar with, whether or not they are best suited to this new purpose.



● Motel owners will appreciate both the beauty and the ease of caring for interior concrete block walls.

You can get your finger in this billion-dollar pie by seeking the owners out and emphasizing the advantages of concrete block construction. Seventy per cent of the owners' funds is earmarked for building; at \$6000 to \$7000 per unit, with an average of 20 units for each motel, this is quite a lot of money. Durability, utility, cost and beauty rank highest with motel owners. Block producers can build their sales talk around these points.

**DURABILITY** — In the 1955 tests at Yucca Flats, concrete block houses withstood the blast of an atomic bomb only 4700 feet away! While the ordinary motel owner will not have bombs in mind when he builds, it is dramatic proof of the strength of this type of construction. In the midwest and the south, concrete block has proven to be termite and tornado proof. Concrete masonry weathers well in the more ordinary conditions of nature; neither frost nor high temperatures damage it. Thus it is eminently suited for — and has been used in — every section of this country. The south and west pioneered concrete masonry construction, with California, Florida, and Arizona giving the material a particularly hearty welcome, but more and more of the northern owners have found that it also serves their building needs. For load-bearing walls, concrete is twice as strong as brick and needs less tuck-pointing and cleaning later. Concrete block is firesafe — a good thing to mention to the owner who plans to build far out of reach of the nearest town's fire equipment.

To the motel owner, these facts are more than incidentally interesting. The business is not a get-rich-quick venture, as many people have discovered to their sorrow; the average return per unit in a year is less than five hundred dollars. This amount must compensate for three hundred and sixty-five days of work on the part of the owner, and often, on the part of his wife. The man who enters it expects to stay for quite some time and build his profits slowly. He can make money from his investment only if he can keep overhead and time lost in repairs to a minimum. His motel units have to last and look good for ten years or more in order to be worth building at all.



● This motor hotel, one of the most attractive in Phoenix, Arizona, uses block on both interior and exterior walls.





● The Skylark Motel in Springfield, Virginia, found concrete block economical as well as beautiful. Like many of the most modern motels, it has taken a cue from luxury hotels and added a swimming pool.

**UTILITY** — Concrete block can be used on interiors and exteriors for face material. It makes good support for other material, and can be plastered or stuccoed more satisfactorily than any other material. It is used in some motels for driveway retaining walls and porch columns, and it can support signs or balconies. The many sizes and shapes of block, and the now-widely-available lightweight block, mean that there is no architectural limitation on its use. With concrete block there is no need for acoustical tile in the motel units since concrete can provide excellent sound absorption characteristics. The construction of block insures insulation with its air cavity — lowering fuel costs and saving on air conditioning. Plumbing and wiring can be carried through the cavities, saving the owner time, trouble and money. Paint takes well to concrete, retains its appearance longer. And concrete block does not pick up hand and finger prints — an important consideration to the owner who has to worry about decorating costs. Soundproofing, one of the major problems of the prospective proprietor, can be accomplished easily with block. Cavity wall construction on the outside walls assures him that no car and truck noises from the nearby highway will penetrate the units. For inner dividing walls two coats of portland cement base paint will often stop sound transmission. Plaster on one wall of each adjoining unit will do the trick as well.

Almost every prospective and current motel operator is planning to expand or remodel his original holding. Generally, the man going into the motel business starts out with a modest number of units — usually ten to twenty. After these have begun to pay for themselves, he builds additional units, a few at a time. As they con-

tinue to show a profit, he repeats this building pattern.

Concrete block construction for the new owner has the added advantage that when he decides to expand, there will be no difficulty in securing matching material. For the one who has built initially of some other material, concrete block holds the promise of blending with it perfectly and of adapting beautifully to any style of architecture he has in mind. The switch from cottage to ranch style motels as first in popularity in the last few years means that many owners will be in the market for modernizing. A motel's face is its fortune, and every



● Block patterns add interest to this New York motel.



owner must stay in the fight to have the most modern, the most striking structure on his particular stretch of road. Right now the newest look in construction is concrete block.

**COST** — Since the beginning motel owner often has only a small sum for initial investment, it is important that he get the most for his money. Concrete block will mean savings to him, not only in the price of materials and labor (one block equals 8 bricks, and takes much less time to lay) but in upkeep. He will save on fire insurance and deterioration, on reinforcement and acoustical material, on decoration. In some locations all that is needed is a one-operation wall. He will get more units for his money, and when he decides to expand, he will have no trouble matching the original ones.

**BEAUTY** — Over 90 per cent of a motel's customers are lured into stopping by its appearance. This is the motel's biggest, and often sole, advertisement; each owner has to have something that is goodlooking and distinctive. Concrete block, alone or in combination with glass and wood, is a perfect answer for him. Frank Lloyd Wright was among the first to recognize the fine aesthetic possibilities of concrete block, and vast improvements have been made in the product to make it even more appealing to architects. The new sizes, shapes, and types of block make it easily the most versatile of all building materials. Its texture goes particularly well with modern furnishings, though some eastern owners have combined it successfully with colonial furniture and some in the south have used it equally well with ante-bellum decor. Split block, slump block and extruded mortar construction are enjoying popularity now in some sections of the country, while the new Shadowal block patterns developed by the National Concrete Masonry Association promise to open up almost unlimited possibilities for even further variation. Even now the patterns possible with block are practically infinite. With all the styles it



● Extruded mortar, seen here in this two-story motel, is particularly popular in the south and the southwest.

comes in, concrete block is an architect's darling. The easiest way to sell an owner on block is to show him pictures of other motels built with the material.

There is no reason why most motels shouldn't be of concrete block — once the owners know about it. And its use in motels will bring a handsome dividend in advertising. The biggest hurdle in concrete masonry construction has always been public opinion, which has persisted in connecting block with basements. Seeing it at its best in motels, the traveling public will automatically become receptive to the idea of using it in the homes they plan to build.

● In its lovely lobby the Skylark Motel combines block with brick, wood and glass to create an effect of warm welcome and of comfort.





# Texcrete Launches Its New Look

**T**HE TEXCRETE COMPANY of Dallas initiated its expanded and modernized facilities with an open house this May. Architects, engineers, contractors, and government and banking officials from Dallas and Fort Worth were shown through the factory and the adjacent plants of Dallas Lightweight Aggregate Company and Texcrete Structural Products Company. Introducing Texcrete's production line of block machines, its expanded central research laboratories, and the four new giant autoclaves, Cedric Willson, vice-president and chief engineer for Texas Industries, explained to the company's guests how the new autoclaving technique insured the production of concrete block at its best.

Visitors also saw the brand new delivery fleet, the enlarged machine shop and parts warehouse, and the

efficient, modern housekeeping equipment Texcrete uses to keep the plant spotless. The company is one of thirty subsidiaries of Texas Industries, Incorporated, world's largest producer of lightweight aggregate and one of the country's leading producers of concrete masonry units.

Highlighting the open house was a champagne christening of the autoclave production line by Mrs. George Meihaus, whose husband is vice president and general sales manager of the firm. At the ceremony, Mr. Meihaus said the autoclaves were installed to insure that Texcrete will continue to be the low cost producer of the highest quality building products for years to come.

The new production facilities boost capacity of Texas Industries' concrete plants in Texas and Louisiana to more than 25 million units a year.



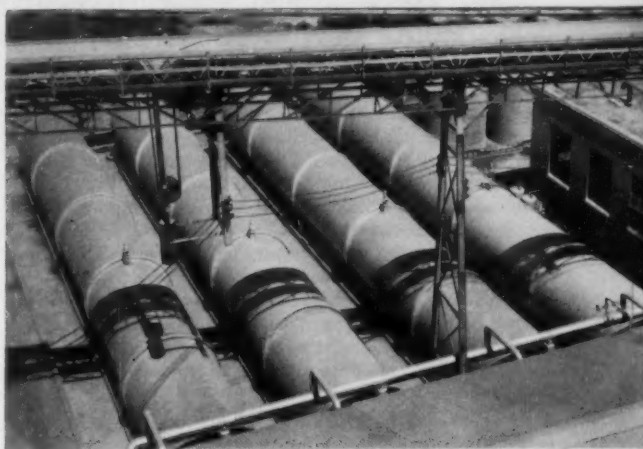


### Autoclave Production Line >>

● Texcrete's high-pressure, high-temperature curing system is made up of four identical autoclaves, 106 inches in inside diameter, 112 feet long, and weighing 125,000 pounds each. They are served by specially-designed contour racks, which make it possible to cure more block per inch of autoclave diameter than do standard racks. With each rack accommodating 34 pallets or 102 units, fully loaded each autoclave holds 3400 block. Since Texcrete operates two cycles, this means a total of 27,200 block for the plant each day. The autoclaves are equipped with quick-opening doors. The new equipment will be standard for all Texas Industries' block plants in the future.

### << Conveyor Belt Cubing

● The cubing of Texcrete block has been mechanized by employing four air hoists to transfer block from the autoclave racks to a conveyor belt. This results in easier work for the employees and permits much closer inspection, while reducing cubing time by twenty five per cent. The system is one of the results of a study made by the company to determine the most efficient production methods. The study also showed that a one-shift operation with three block machines would be preferable to a two-shift operation with the two machines they had at the time. When they purchased the third machine, they installed an additional set of overhead bins and a double traveling weigh batcher. Using assembly line techniques and keeping production on a one-shift basis has meant better control and standardization of quality than is possible with two shifts.



### << Texcrete's Research Lab

● Rudolph C. Valore, head of Texcrete's four-man research staff, shows open house guests through the company's central laboratory. Handling quality control, research, and product development for all Texas Industries' plants in Texas, Oklahoma and Kansas, it has been called the equal of any plant laboratory in the industry. Mr. Valore won international recognition while with the National Bureau of Standards for his work with cement and concrete. The laboratory houses a chemical section equipped with all standard analytical facilities, and a physical section which includes a small block machine, concrete mixer, pilot rotary kiln, foam generator, and a small autoclave.



# Cement Supply

## *Survey of ready-mix producers indicates tight situation for remainder of 1956*

A survey of member firms just completed by the National Ready Mixed Concrete Association indicates that in many parts of the country there were serious shortages of cement in the first five months of 1956, and that the shortage will be more acute and widespread in the remaining months of the year. Over 300 member companies in 43 states, Alaska, the District of Columbia, and Canada supplied information for the survey.

Of the 309 companies that filled out the association's questionnaire, 71 reported that cement supply was inadequate during the first five months of 1956, and 187 predicted that there would be shortages during at least a part of the remaining seven months of the year. Estimates of the additional cement which the reporting concerns could use during the year if it were available totaled 3,334,000 barrels, representing a loss of approximately 2 2/3 million cubic yards of ready-mixed concrete. However, these figures do not represent a full picture of the industry's probable production loss, since a considerable number of the reporting companies made no attempt to estimate how much additional cement they could use.

The survey data indicate that the 1956 cement shortage is most acute in the middle western states of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio and Wisconsin. It appears to be least severe in the far west.

On a regional basis, the New England states (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont) experienced no shortage in the first 5 months of 1956. Of the 13 companies reporting from this area, 9 expected a cement shortage in the remaining 7 months of the year, the most crucial months being July, August, September and October. The Middle Atlantic states (Delaware, Maryland, New Jersey, New York, Pennsylvania and the District of Columbia) experienced spot shortages during the first 5 months of the year. Five of the 49 companies reporting from this area indicated a shortage of cement during the first 5 months and 30 companies expected a shortage in the remaining 7 months of the year. As in the case of New England, the survey data indicated that July, August, September and October would be the critical months in the Middle Atlantic area.

Companies located in the South Atlantic states (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Virginia) reported a somewhat more extensive shortage during the first 5 months of the year than was experienced in the Middle Atlantic states. Sixteen of the 54 companies reporting from the South Atlantic states experienced a shortage in the first 5 months of the year and 27 companies predicted a shortage in the remaining 7 months. The entire period from May through October promised to be critical in this area and, in Florida at least, the outlook was for a shortage of year-long duration.

Ninety-four companies reported from the East North Central states of Illinois, Indiana, Michigan, Minnesota, Ohio, West Virginia and Wisconsin. Almost one-third of these companies experienced a shortage in the first 5 months of the year and 85 companies, or more than 90 per cent, expected a shortage in the remaining 7 months of the year.

Only 5 of the 33 companies reporting from the West North Central states (Iowa, Kansas, Missouri, Montana, Nebraska, North Dakota and South Dakota) experienced a shortage during the first 5 months, but 16 companies expect a shortage in the last 7 months. June through October will be the critical period in this area. In the South Central states of Arkansas, Louisiana, Oklahoma and Texas, 8 of the 19 reporting companies experienced a shortage during the first 5 months and 10 companies anticipated a shortage during the remaining 7 months.

Only one company from the Mountain states (Arizona, Colorado, Idaho, Nevada, New Mexico, Utah and Wyoming) reported a shortage during the first 5 months. Three companies anticipated a shortage during the remaining months, with the shortage occurring in August, September and October. As in the case of the Mountain states, the shortage reported by companies from the Pacific coast (California, Oregon and Washington) was less severe than in other areas of the country. Three of the 32 companies from this area experienced a shortage in the first 5 months and 5 companies anticipated a shortage in the remaining months of the year, with the critical period being in July, August, September and October.

Either (or both) of two reasons for the shortage was indicated by more than 90 per cent of the reporting companies: (1) Inadequate cement production for the area's normal requirements; (2) Stronger than normal demand for ready-mixed concrete. Of the 187 companies which experienced a cement shortage during the first 5 months of the year, or anticipated a shortage during the remaining months of 1956, 152 companies reported that cement production for their area's normal requirements was inadequate; 71 companies indicated that a stronger than normal demand for ready-mixed concrete was a major cause of the shortage; 45 companies advised that railroad car shortage is a principal factor.

For the nation as a whole, the shortage will be most acute in August, September and October. Almost 90 per cent of the companies expecting a shortage during the remaining 7 months of the year listed September as a critical month.

Ninety-two of the 309 reporting companies advised that they will find it necessary to purchase out-of-area cement this year and 39 companies will buy foreign cement. Of the 92 companies who will purchase out-of-area cement, 84 companies estimated the total quantity they will purchase at 1,928,600 barrels.



# They Make Safety Pay — Both Ways

*This carefully thought out program borrows from the best of other safety plans and adds new twists of its own*

**A**CCIDENT MONEY is the expense that clogs the wheels of industry. There are a thousand ways it is spent — on higher insurance rates, on damage claims, on equipment repairs, on hospital bills, down time, lost man hours. Determined not to waste its cash, the Hamilton Gravel Company of Hamilton, Ohio initiated a sensible incentive safety program last April that bids fair to reward the employer as well as the employee. The company, which produces ready mixed concrete, has the patience to take a long view of the problem and not to expect immediate miraculous results, and the wisdom to make its program flexible so that if necessary it can be improved. Perhaps the industry could take note of what this firm is doing and adopt some of these practices to better its position in the safety statistics.

## **The plan is based on quarterly bonuses...**

This puts a positive slant on the matter; there are rewards for the employee but no punishments. It makes the extra alertness it takes to be safe worth while. No one ever intends to have an accident, but few workers will be careless when caution means cash. A ten dollar check is made out to all ready-mix and dump truck drivers, operations engineers, sand and gravel truck personnel, ready mixed concrete batch employees, and garage workers who have had no accidents charged to them for the previous three months. Making these payments four times a year keeps up

constant interest in safety. It is far easier to be careful for three months at a time than for twelve. And the amount is generous enough to be worth working for.

## **The bonus check is mailed home...**

It is not made a part of the pay check. In this way the employee's family can see that the company he works for appreciates safe practices. It also tends to make his wife encourage him to keep up the good work.

## **In addition to this individual payment, there is a general pool for safe drivers...**

A large percentage of the accidents in the business are accounted for by ready mix and dump truck drivers. This is not only bad for the trucks and truckers; it often creates ill feeling toward the company. Hamilton Gravel deposits \$2.50 each quarter for every driver employed, and when there is a chargeable accident and the driver forfeits the money, this goes into the pool too. Drivers are divided into two teams by drawing lots. Members of each team elect a team captain for the next six months, who becomes a member of the safety committee. At the end of the year the accident-free drivers on the winning team divide the pool on a share basis—one share for each consecutive year of safe driving. This pool has four benefits: it gives the drivers an overall goal to try for; it makes safety, of necessity, a topic of con-

versation and interest among teammates; the friendly rivalry it generates helps keep morale high; and it tends to keep turnover low, since any man who leaves the company before the end of the year loses his pool benefits. This last factor — high turnover — has come up in every serious study of the problem as one of the main causes of industrial accidents. Men who are induced to stay on the job lower the accident figures.

## **The safety committee represents labor, management, and expert opinion...**

Vice-president of operations Roger H. Slugg is chairman, and membership is made up of the two team captains, the plant superintendent, the head mechanic, and an insurance representative. Since the team captains are elected for six months, and they can't succeed themselves, eventually every driver will get on the committee. They vote by secret ballot on every accident question, using the rules set down by the National Safety Council (with special problems of the concrete industry taken into consideration) to decide which accidents are chargeable to the man involved and which are not. An accident that is not reported within 16 hours is considered chargeable, no matter who was to blame.

## **Safety meetings are frequent and voluntary...**

It is the safety committee's responsibility to plan the company meetings held every two months.

Since the company feels that only when the employees attend of their own accord will any good be accomplished, it is a challenge to the safety committee to make these meetings interesting enough so that everyone will want to attend.

**W**HAT HAVE BEEN the results of the program in the first three months of its existence? Chairman Roger Slugg had this to say:

"Prior to the inception of the program, the reporting and handling of accidents was haphazard. Now we can develop a record of the kind of accidents we experience, why they occurred, and take corrective steps to prevent similar accidents.

"We have a quicker follow-up system as a result of the program. Both the management's attention and the participants' interest is focused on an accident soon after it happens. We have the opportunity to make an investigation and a settlement on the many small property damage accidents which seem to plague the ready mixed concrete industry because of our off-the road operations on construction projects. Therefore, we are in a better position to promote good will with our customers and the general public.

"The participants in the incentive safety program are finding that safety pays. Of the 28 employees who were

eligible to share in the program in the first three months of its operation, 22 have received the quarterly award. Six accidents were found chargeable by the safety committee. The six men who forfeited the \$10 will no doubt work harder during the next three months in order to receive this extra income.

"Many drivers are beginning to realize the additional financial benefits that are available from the division of the general pool at the end of the year. On July 1, the pool amounted to \$167.50, made up of \$2.50 per quarter per driver, plus \$60 of forfeited quarterly awards. Team A has had three chargeable accidents. Team B with two chargeable accidents is leading. (The sixth accident was by a non-driver.) At this time a share in the general pool for each of nine eligible members of Team B is \$18.60. Since it will be six months before the pool is divided, this share will certainly increase, perhaps to \$40. As a result, the competition between the two teams is becoming an important factor in the program.

"With absolutely no change in the method of solicitation, individual annual memberships in the Hamilton Safety Council paid by employees more than doubled in 1956 over 1955. We think we are becoming more safety minded at home and school, as well as at work.

"The personnel of the company

have openly expressed a realization that safety has become a topic of conversation among themselves. They recognize that they are seeing, hearing, and talking more about safety than before.

"So far, we do not think the program has reduced the number of accidents. Eventually it will. In the first three months of the program we had sixteen accidents reported to and reviewed by the committee. Based on personal recollection this would appear to be an increase in accidents. Actually, we do not think so. It represents more complete, prompt, and accurate reporting and recording. On the other hand, perhaps our accident experience may have improved. Without the new program we might have had 32 accidents instead of the 16 we voted on. It is impossible to count the accidents that don't happen.

"In 1956, we hope to develop an awareness of the importance of working safely. This, in turn, will bring about safe work habits and attitudes. Then the application of safety will take place, which will bring substantial reductions in personal injuries and property damage accidents in our company. We are not surprised or disappointed that we did not realize a sudden drop in accidents. We think that our program will do this for us over a period of time if we continue to keep it alive and active."



## Can You Pick Out the Fake?

● One of the pictures at the left is an actual view in the ancient Old City section of Jerusalem — the other a movie set built entirely of foam concrete. The material was used instead of plywood, paper-mache, masonite or other conventional movie-set materials because its porous texture and natural color gave it a strong resemblance to the ancient stonework. The technique was worked out in conjunction with the filming of the picture "Hill 24 Does Not Answer". The upper picture is a complete reconstruction of historic Zion Gate in which foam concrete was used exclusively. The set was actually site poured as a monolithic wall, and the gate and other details were then carved out of the easily-worked material with ordinary hand tools. After this set had served its purpose, the wall was cut up into blocks and utilized for other purposes.

# \$ales CLINIC



## Foreign Correspondence

If you're having trouble with prospects throwing away your direct mail promotional letters without so much as the courtesy of a reading, here's a gimmick which helped a midwestern dealer prevent such heresy. He sent his sales messages to a friend in Italy, and had them stamped and mailed there. The letters attracted attention, got read, and the mailing was more effective than any of his other previous direct mail campaigns. It perhaps also should be pointed out that another excellent way to produce results from direct mail is to turn out an effective and compelling direct mail piece in the first place.

## For Whom the Bells Toll

You have a gadget just a few feet from your hand that might cut your selling costs in half. We mean the telephone, of course — a much maligned, much abused and (sometimes) a much overlooked instrument. That might be a little hard to believe if you have a couple of teenage children who eat their meals by the telephone, but in business it's often literally true. Since building materials are adaptable to telephone selling, you might profitably invest a few minutes time considering the following points:

It's dangerous to assume your product can't be sold by telephone simply because it isn't *usually* sold that way.

With almost any product, the salesman who uses his telephone wisely and effectively an hour or so a day will spend *more* time in the presence of his prospects than if he used that hour sitting in waiting rooms. Salesmen who learn *how* to use the telephone will multiply the hours they spend each week in face-to-face selling. And they'll make more sales per call because the prospect who has agreed to an appointment is in a much better frame of mind than those who are called on cold.

Surveys show companies that sell by telephone have low order costs on their telephone business — often

between 2 and 5 per cent of sales, and sometimes less than one per cent. For example, a plumbing supply wholesaler does a business of \$3 million a year entirely on collect telephone calls, which he encourages with direct mail advertising. His sales cost is less than 2 per cent, and his telephone business is cash, so he has no credit losses or collection expenses.

A business machine distributor was paying \$3.25 each for salesmen's appointments obtained through local direct mail. A girl in the office tried following up the mailing with a telephone call, got five times as many appointments for the salesmen as the letters alone had produced, and reduced the cost per appointment to \$1.20.

Few companies have really exploited the possibilities of the telephone as a *sales tool*. Used with intelligence, imagination and understanding, it may help solve some of your sales problems.

## Now Picture This . . . .

The Westinghouse Electric Corporation has come up with an idea designed to increase the effectiveness of attendance by its employees at a convention, trade show or industry gathering. It could be easily adopted by anyone else who wants to take home the maximum amount of useful information to be gleaned from such meetings.

Westinghouse employees carry a camera with them when attending meetings. They photograph anything and everything they want to preserve in memory — particularly slides and charts which capsule pertinent and useful information. When they get home, they can look over the material they photographed, discard that which isn't pertinent and maintain a photographic file of information which will be useful to them.

Of course this involves some problems. Lighting and camera angles may be bad, or heads may be in the way or a presentation in progress. But the picture-taker must remember that top quality photography

isn't important; only legibility is necessary. Westinghouse people have found a 35 mm. camera is best, particularly because it provides enough exposures per roll to minimize film changing.

## Light-Up Time . . .

Ever consider the humble match book as a place to tell your product and sales story? It's a highly flexible medium that can be moulded into dozens of ingenious and colorful shapes and sizes; or it can be used effectively in its traditional shape and size by adding eye-catching sales promotion or product-use messages on both the outside and inside covers. One building material dealer has used the inside of a match folder to print a chart to help the customer estimate the amount of materials required for a given job, with a promotion blurb on the outside cover. Many dealers are now using match books in direct mail promotion. (About 5 per cent of all match books are now distributed by direct mail.) So if you want to light a fire under some reluctant customers, why not try it with match folder advertising? You may turn up some hot prospects.

## No More Soggy News

Here's a new and effective means of local advertising that would be admirably suited to ready-mix operators and products producers. It was conceived by a Chicago advertising man whose pet peeve was picking up a sodden mass of wet newspaper at his front door every time it rained. One day he discovered a dry newspaper at his door on a rainy day and found the paper boy had protected it with an old bread wrapper. The next step was a cinch for an advertising man. Why not manufacture wax wrappers for rainy-day delivery of newspapers — and sell advertising space on the wrappers? Today, over 200 news agencies and advertisers subscribe to his service.

The news agencies don't have to pay for the wrappers; all they have to do is promise to have the paper boys put them on when a rainy day comes along. The advertisers pick up the tab, but in return they get a sure-fire goodwill gimmick. A company can make a lot of friends by telling citizens in its locality, "This newspaper comes to you DRY today through the courtesy of Jones Ready Mixed Concrete" — followed by an address and phone number. Home owners won't forget the name the next time they need building materials and are wondering who to call.



## 25th Anniversary

Combination  
WORKhorse and  
RACEhorse!  
that's

The new  
**ROCKET**  
"65"



### ALL THESE FEATURES at NO EXTRA COST!

**HYDRAULIC CHUTE CONTROL**  
Is fully automatic.  
Controls grouped for easy access.

**ALUMINUM EXTENSION CHUTE**  
attaches to 36" fold-over  
addition to main chute.  
Total discharge chute: 12' 6".

**ELECTRIC REVOLUTION COUNTER**  
kit included; you can handle most  
specifications with the Rocket!

**SPECIAL ALLOY**, abrasion resisting  
steel used at all wear points.

**UNOBSTRUCTED HOPPER**, for rapid  
charging, no spilling or waste.

**POSITIVE CHAIN DRIVE**,  
flexible power, not affected  
by truck twist, road shock.

**STANDARD INDUSTRIAL ENGINE**,  
truck-type transmission.  
Repair parts readily available.

**THREE-POINT SUSPENSION**,  
one-piece cast steel  
precision machined ring.

**DEMAND THE  
BADGE OF DEPENDABILITY**



### MAIL THIS COUPON TODAY!

Gentlemen: Please rush full information, prices and terms  
on the following:

- ☐ New Rocket Revolving Drum Truck Mixer    ☐  
☐ Hi-Lo Stationary Drum Mixer  
☐ Batching Equipment    ☐ Water Meters  
☐ Material Handling Equipment

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

4983 FYLER AVE., ST. LOUIS 9, MO. Flanders 2-7800

**CONCRETE  
TRANSPORT  
MIXER CO.**

## CEMENT BRIEFS

### Outlook

New facilities capable of producing 46 million additional barrels of finished portland cement are being built and are scheduled to be completed by the end of 1956, according to a recently completed study published by the Department of Labor and Commerce. The study also found that in the past year new facilities came into production with 17 million barrels capacity, bringing the industry's potential output to 311 million barrels at the start of 1956. The expansion program of this industry, including recent additions, work now underway, and further plans extending to the end of 1958, may add about 100 million barrels to 1954 capacity, an increase equal to the total increase achieved in the previous 30 years.

### Prices

Cement and ready mixed concrete prices have advanced in Milwaukee as a result of the Great Lakes tug strike and insufficient output to meet heavy demand.

Three cement producers — Lehigh Portland, Lone Star and Penn-Dixie — increased prices five to ten cents a barrel at their mills in the South and Midwest, effective July 1.

### New Plants

The Dragon Cement Company has begun deep boring tests for limestone in the Berkshires. If the tests prove positive, a new \$10 million dollar plant may be established there.

Lehigh Portland Cement Company will build a cement manufacturing plant in Dade County, Florida, at a cost of more than \$20 million. The plant will have an annual capacity of 2 million barrels.

Medusa Portland Cement Company plans to build a cement plant near Wampum, Pennsylvania, at a cost of about \$12 million. Production capacity will be 2.5 million barrels annually.

A \$10 million cement plant is to be built at Scholle, New Mexico, by the Permanente Cement Company, a Henry J. Kaiser affiliate. The plant will become the state's first cement operation and will have an annual capacity of 1.4 million barrels of cement.

Universal Atlas Cement Company will construct a \$20 million cement

August, 1956—CONCRETE



plant in Lorain, Ohio, if the city council approves rezoning and preliminary plans.

#### Increased Capacity

Directors of the Consolidated Cement Corporation have authorized an additional 1.25 million barrels of cement producing capacity for the company's Paulding, Ohio, plant which is now nearing completion. The additional production just authorized is scheduled for late 1957, bringing the plant's annual capacity to 2.5 million barrels.

Some recent announcements of expansion within the cement industry:

General Portland Cement Company, Chicago, Illinois, plans to double the production capacity of its plant scheduled for construction near Miami, Florida, from 1,250,000 to 2,500,000 barrels annually.

Southwestern Portland Cement Company has completed a \$500,000 expansion program increasing its capacity to 6200 barrels daily.

Standard Lime and Cement Company, Martinsburg, West Virginia, is now in operation. The new facilities, with an estimated capacity of 1,400,000 barrels annually, will add substantially to total production.

Universal Atlas Cement Company, New York, New York, plans to construct a plant at Lorain, Ohio, subject to the approval of the City Council.

#### March Production

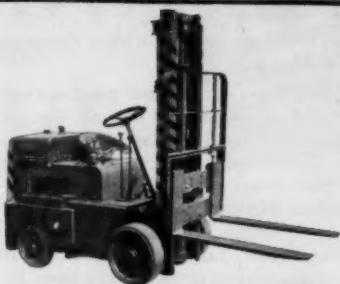
Shipments of finished portland cement in March 1956, as reported to the Bureau of Mines, U. S. Department of the Interior, totaled 22,222,000 barrels, a decrease of 2 per cent from shipments in March 1955. Apparent consumption, as indicated by shipments into the various States, was higher in 23 states and lower in 25 states and the District of Columbia as compared to March 1955. Shipments of high-early-strength cement, as reported to the Bureau of Mines, totaled 915,000 barrels; shipments of prepared masonry cement totaled 1,156,000 barrels (in barrels of 376 pounds each).

#### Foreign

Cement exports from Japan during 1955 climbed nearly 20 per cent to 1,081,000 tons, from 904,000 tons in 1954.

About 280,000 tons of cement — equal to some 6 per cent of Canadian productive capacity — will be imported from Iron Curtain countries to relieve the immediate shortage in the Canadian construction industry.

#### Reconditioned FORK LIFTS



#### SAVE MONEY! GET NEW GUARANTEE

Good as new! We, as country's best qualified equipment distributor, guarantee it! 2,000 to 15,000 lb. models with solid or pneumatic tires; any size; lifting height. Clark, Towmotor—Moto Lift, Ross and Hyster.

Write for prices, delivery, information.

**MEMPHIS EQUIPMENT**  
CONSTRUCTION AND AUTOMOTIVE  
EQUIPMENT AND PARTS  
766 SO. THIRD ST. MEMPHIS, TENNESSEE

#### CALL ON **Quinn** For **QUALITY** **CONCRETE** **PIPE** **FORMS**

"**STANDARD**"  
The World Over



Backed by over 45 years of reliable service, the QUINN Heavy Duty form is recognized as the STANDARD design and the finest concrete pipe form everywhere. Used in making pipe by vibration, spading or tamping. Sizes for pipe from 10" to 120" and larger. Tongue and groove (as shown) or bell end pipe in any length desired. If your pipe orders specify extra large sizes, odd shapes or unusual lengths, there's a Quinn form made to produce the finest pipe at lowest possible cost.

Also Manufacturers of  
**QUINN CONCRETE PIPE MACHINES**



#### Free CATALOG

Illustrates our complete line of equipment. Contains pages of valuable tips for the concrete pipe manufacturer. Write today for your free copy and estimates.

**Quinn WIRE & IRON WORKS**  
ECON, IOWA

These Notes were placed privately through the undersigned with an institution purchasing them for investment.

\$6,250,000

## The Monarch Cement Company

4½% First Mortgage Notes due 1971

F. EBERSTADT & Co. SHILLINGLAW, BOLGER & Co.

July 6, 1956.

## MANUFACTURERS' NOTES

### Reo Line Expanded

Reo Motors, Inc., Lansing, Michigan, made public recently the fact that it had expanded its line of heavy-duty vehicles by 30 new basic models within the past year, including a line of turbodiesels, eight off-highway trucks, cab-over-engine tractors and several lightweight tandems. The final step in this program will be the addition of the 200-, 250- and 300-hp diesels, the first of which will be in

the building process within the next few months.

The Reo development program embraced many things beyond the expansion of its line, according to John C. Tooker, president. A complete reorganization of its field sales organization, construction and purchase of new branches, re-location of several others and radical changes in its manufacturing process have been but a few of the main activities undertaken since the company was pur-

chased by Bohn Aluminum & Brass Corporation late in 1954.

### Sales Agent



J. E. Branch

Concrete Transport Mixer Company, St. Louis, Missouri, has announced the appointment of John E. Branch as exclusive sales agent for the company's products in the North Texas territory.

In addition to selling a complete line of truck mixers, Mr. Branch also will provide ready-mix plant operators with plans and equipment for concrete plants of all types.

### Tamms Elects President



E. E. Troyer

At a meeting of the board of directors of Tamms Industries, Inc., recently, E. E. Troyer was elected president of the corporation. Mr. Troyer joined Tamms in March of 1934, and in January 1944

was made vice president. The board also appointed Mrs. Frieda Gerreston, treasurer and H. P. C. W. Barber, secretary.

### Marquette Shareowners Meeting

Shareowners attending the 54th annual meeting of Marquette Cement Manufacturing Company, recently, heard president W. A. Wecker hold forth prospects for an improved year for the company. Increases in production, sales, shipments, earnings, and an end to any vestige of shortage in cement supply by year-end, was the gist of his report at the meeting. The report to the shareowners disclosed the fact that Marquette production is expected to show an increase of 5½ per cent for the year compared with last year; and that considerably more cement will be available in 1957 when the company's new facilities now under construction at Milwaukee, Cape Girardeau and Des Moines will be in full production. Mr. Wecker stated that Marquette expenditures in 1956 for new capacity, as well as for improvements and replacement, will total approximately \$20,300,000.

## "BIG TIME" ADVANTAGES

IN THIS  
COMPACT AND  
RELATIVELY  
INEXPENSIVE  
**KENT**  
SUPER  
BLOCKMAKER



Here is an entirely new semi-automatic machine ideally suited for SMALL and MEDIUM block plants.

A SPECIAL air cylinder-powered press head makes possible a faster cycle and assures blocks of uniform height and equal density regardless of the material used.

PRICED BELOW any machine of comparable performance, the SUPER BLOCKMAKER consistently produces blocks at a rate of 3 per minute from any aggregate and has a peak output of 6 blocks per minute.

Equal delivery of aggregate to the mold box is effected by agitation and mold box vibration assures uniform block density.

A simple push of a button starts cycle during which various operations are automatically handled in sequence.

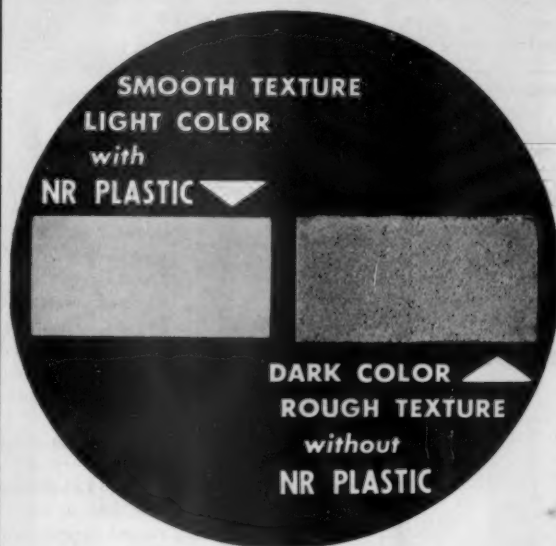
You'll be surprisingly pleased at the comparative low cost of this machine. Write TODAY for illustrated circular.

*The* **KENT MACHINE COMPANY**

CUYAHOGA FALLS, OHIO

CONCRETE PRODUCTS MACHINERY SINCE 1925

# FOR ½ CENT PER BAG OF CEMENT **YOU PROFIT TEN WAYS!**

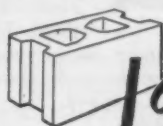


## Only NR PLASTIC

### Gives You All These Advantages

- Smoother Finish
- 20% Lighter Color
- Denser Surfaces
- Sharper Corners
- Greater Plasticity in the Green Unit
- Complete Hydration
- Reduced Moisture Absorption
- Fewer Culls
- Faster Stripping
- Less Mold Box Wear

Add DRY as it Comes From the Container  
Write for Literature and FREE 3 Lb. Sample



**Edick  
LABORATORIES**

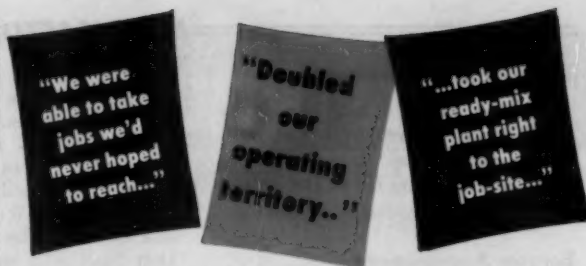
427 W. National Ave., Milwaukee 4, Wis.

### MAIL COUPON FOR FREE SAMPLE

Edick Laboratories, Inc., 427 W. National Ave., Milwaukee 4, Wis.

Please Rush Sample of NR PLASTIC

Name .....  
Company .....  
Address .....  
City ..... State .....



These are typical comments from users of the

# TRAVEL BATCHER

### Opportunity for manufacturer's commission representatives:

We are boosting our output of Travel-Batchers—a result of continued high construction activity and the great new Federal highway program. To handle this increased distribution, we must have additional representatives in several important markets. Write today about this opportunity for real earnings.



### For Ready-mix operators:

This revolutionary concrete batcher gives you a portable ready-mix plant right at job-site... anywhere the highways will take you. You can take jobs that would ordinarily be far out of reach. The Travel-Batcher makes one mixer truck at job-site do the work of six trucks running to and from the plant.

### For contractors:

You can set up your own ready-mix plant right at the job-site, giving you a continuous, quality-controlled supply of concrete, batched and timed precisely to your needs.

Send today for complete information on the most profitable investment you can make.

## TRAVEL BATCHER, INC.

6500 South Holladay Blvd.

Salt Lake City, Utah

Please send complete information on the Travel-Batcher.

Name .....

Company Name .....

Address .....

City ..... Zone ..... State .....

..... Commission sales agent

..... Ready-mix plant

..... Contractor

## MANUFACTURERS' NOTES

### Assistant Sales Manager

Louis A. Wehde has joined the Four Wheel Drive Auto Company staff as assistant sales manager, it has been announced by G. F. DeCoursin, vice president in charge of sales.

### Bergen Appointments

D. A. Zupa, sales manager of Bergen Machine & Tool Company, Inc., Nutley, New Jersey, has announced appointments to Bergen's

field sales staff. Ivan W. Benson, Decatur, Georgia, will represent the company in the states of Georgia and Alabama. "This appointment," Mr. Zupa said, "is in keeping with our desire to constantly improve our customer service. We are reducing the size of each sales territory. Recently Don Bush, who formerly covered several states in the southeast, was assigned to cover only the state of Florida. Karl Eggerth, who formerly represented the company on the west coast, has been assigned to cover the

states of North and South Carolina and a portion of the southwest."

### Giant Kiln Installed

A fifth kiln now in operation will add 1,000,000 barrels of cement to the annual production of the Calaveras Cement Company plant at San Andreas, California. The kiln and its related equipment boosts productive capacity of the Calaveras plant to more than 4,500,000 barrels of cement per year, making it one of the largest cement plants in the United States.

### Sales Engineer



J. E. Poythress

The appointment of James E. Poythress as sales engineer for Form-Crete pre-stressed concrete forms in the Northeastern section of the United States has been announced by the Florida Division of the Food Machinery and Chemical Corporation in Lakeland, Florida. Mr. Poythress has a background of long and varied experience in the construction and engineering fields.

### District Representative



K. Simpson

The Heltzel Steel Form and Iron Company of Warren, Ohio, has announced the appointment of Kenneth Simpson as district representative for its company and The Flexible Road Joint Machine Company in eleven western states. He was formerly employed by The Noble Company.

### Power Steering

Every model in the Towmotor line of fork lift trucks of 6000-pound capacity and over can now be equipped with newly-improved power steering, during assembly or at any time after delivery, according to the manufacturer, Towmotor Corporation, Cleveland, Ohio. No special equipment is required to make the change from manual to power steering on any model.

*This is not an offer of these Securities for sale. The offer is made only by the Prospectus.*

### NEW ISSUES

## Lake Ontario Portland Cement Company Limited

(Incorporated under the laws of Canada)

**\$6,497,400 (Canadian) 5½% Debentures due June 30, 1971**

**232,050 5% Convertible Preferred Shares**

(Cumulative only from July 1, 1958)  
Par Value \$10 (Canadian) Per Share

**696,150 Common Shares**

Par Value \$1 (Canadian) Per Share

Offered only in the ratio of \$700 (Canadian) principal amount of Debentures, 25 Convertible Preferred Shares and 75 Common Shares, and integral multiples of such principal amount and numbers of shares respectively.

### Price in United States Dollars

**\$687.95 Per \$700 (Canadian) principal amount Debentures**  
(plus accrued interest)

**\$10.18 Per Convertible Preferred Share**

**\$1.02 Per Common Share**

*Copies of the Prospectus, as filed under the Companies Act of Canada, will be furnished promptly upon request by such of the underwriters, including the undersigned, as may lawfully offer these securities in such State.*

## Kidder, Peabody & Co.

Simultaneously with the offering in the United States, as set forth in the Prospectus, a portion of the Debentures, Convertible Preferred Shares and Common Shares are being offered for sale in Canada by a group of Canadian Underwriters including

**Nesbitt, Thomson and Company, Limited**

June 28, 1956.



# IT'S Firesafe AS WELL AS...

- ★ Lightweight
- ★ Durable
- ★ Sound-Absorbing
- ★ Attractive
- ★ Strong
- ★ Nailable
- ★ Of High Thermal Insulation Value
- ★ An Excellent Plaster Bond

## CELOCRETE LIGHTWEIGHT AGGREGATE



No wonder Celocrete Lightweight Aggregate is being used by more and more leading builders and manufacturers of concrete products. Its big construction advantages and economies make Celocrete the preferred aggregate for masonry units, pre-cast building panels, soffit tile, monolithic floors and roof fill, and many other uses.

Celocrete Lightweight Aggregate is made from expanded slag by a process licensed *only* by the Celotex Corporation. This exclusive method honeycombs every particle of Celocrete aggregate with tiny air cells—resulting in lightweight plus *built-in* insulation and sound-absorption value. For complete information write The Celotex Corporation, 120 S. LaSalle Street, Chicago 3, Illinois.

Another Famous **CELOTEX** Product

## CELOCRETE

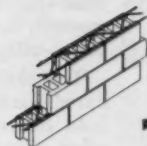
REG. U. S. PAT. OFF.

### LIGHTWEIGHT AGGREGATE

The Celotex Corporation, 120 S. LaSalle Street, Chicago 3, Illinois

# DUR-O-WAL

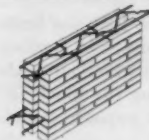
## Backbone of Steel for EVERY Masonry Wall



RUNNING  
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### DEMAND

Designed specifically for masonry crack control, Dur-O-wal is specified by architects and builders everywhere. Supply this demand.



CAVITY  
WALL

### QUALITY

High tensile deformed steel side rods and butt-welded, trussed design cross rod combine to make Dur-O-wal an all-working steel reinforcing assembly.



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WALL



BONDED  
WALL

### PROFIT

Dur-O-wal is a fast turn-over, tie-in masonry item. Easy to stock, easy to sell, Dur-O-wal gives you a good margin of profit.

Nationally advertised, Dur-O-wal is a quality brand name, recognized at once by architects and builders alike. Nation-wide distribution of plants and jobbers guarantees prompt deliveries and low freight rates. For the name of your Dur-O-wal jobber, phone, wire or write today to Dept. 7P.

### Trussed Design

Butt Weld • Deformed Rods

# DUR-O-WAL®

Dur-O-wal Div., Cedar Rapids Block Co., CEDAR RAPIDS, IA Dur-O-wal Prod., Inc., Box 628, SYRACUSE, N.Y. Dur-O-wal of Ill., 119 N. River St., AURORA, ILL.  
Dur-O-wal Prod. of Ala., Inc., Box 5446, BIRMINGHAM, ALA. Dur-O-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD. Dur-O-wal Div., Frontier Mfg. Co., Box 49, PHOENIX, ARIZ. Dur-O-wal, Inc., 165 Utah St., TOLEDO, OHIO

## LETTERS TO THE EDITOR

### Lots of Cinders

Sir:

With reference to your article on page 9, April issue, headed "Cinder Shortage Rates Headline", I would like to remind your readers that four years ago, I told a group of block manufacturers at the National Concrete Masonry Association's convention in Cleveland that they could rely on us to take care of their cinder requirements (that is, those located in the Eastern States) for years to come.

I am happy to state that we have lived up to that promise and further state that we are in an excellent position to continue serving the block industry for many more years to come.

—V. B.

### More About Foam

Sir:

I would like to add some information to that presented in your April 1956 issue in the article entitled "Use of Foam in Concrete" by John L. Hanhold.

As you know, the hydration of portland cement is an "exothermic" or "heat releasing" reaction. That is, as cement hydrates heat is given off and the temperature of the concrete rises.

A concrete mix containing an appreciable volume of air should react to this increase in concrete temperature so as to satisfy Boyle's Law; that is, the volume of a gas increases as the temperature increases. Therefore, we would expect to see a slight expansion of the foam concrete as hydration progresses.

Mr. Hanhold's statement, "there is no expansion in the forms or molds after the mix is placed" indicates that foam concretes might actually suffer a loss of volume with time, and in sufficient quantity as to compensate for the expected expansion. One possible method would involve the release of foam air at the exposed top surface. Foam breakdown would also tend to release water for subsequent drainage loss.

He also states "these foams are not affected by . . . normal temperature variations. . . ." I believe Mr. Hanhold will be among the first to admit that foams are extremely sensitive to temperature variations and will become much less stable volumetrically with

increases in temperature over 70 degrees F. He shows cognizance of this effect in the next paragraph by stating that expensive and hard-to-get high early cement is preferred to regular portland. This recommendation clearly demonstrates the great need for developing sufficient strength in the cement matrix before foam collapse.

The shrinkage cracking in moist-cured foam concrete that Mr. Hanhold refers to on page 34 is a real effect. Fresh foam concretes exhibit this cracking primarily due to differentials in the degree of shrinkage exhibited at the exposed surface (high shrinkage) and in the depth of the pour itself (low shrinkage). This is especially apparent in the field installation of flat decks during hot, dry summer conditions, where very bad cracks can develop before the application of the top surface.

A word of caution concerning foam-sand mixes; a high air-volume to sand-volume ratio can result in a concrete with very bad aggregate stratification problems. That is, the resultant concrete could have high sand content, high density and high strength at the bottom of the slab, and low sand content, low density and low strength at the upper or exposed surface of the slab.

To my knowledge, there is no foam available that is sufficiently stable to do all the things the many promoters of such compounds say they can do.

I agree with Mr. Hanhold when he says, "In order to prevent the misuse of foam concrete, the applicator must be familiar with the limitations as well as the capabilities of the particular foaming system he is using."

These limitations are real and critical; to ignore them can mean job failures and harm to the entire concrete industry.

—M. S.

### Correction

Sir:

Upon receipt of your letter of June 15 and the advice contained therein, we proceeded to look into the case of Simmons v. Rhodes & Jamieson and found that the decision referred to in the article published in your March 1956 issue of Concrete was a reversal by a District Court of Appeals of the dismissal of the plaintiff's case at the close of the plaintiff's evidence and without the

taking of any evidence by the defendant. In other words, the trial court granted a nonsuit at the close of the plaintiff's case. It is unfortunate that your article did not reveal the fact that the Court of Appeals did not render a decision on the merits of the case, but simply ruled that it had not been properly tried in the lower court.

As a matter of fact, the quotation in your article is somewhat inaccurate because it omits in each of the last three sentences a reference to the nonsuit. With the omitted words in parenthesis, these sentences should read as follows:

We, therefore, hold that (for the purposes of nonsuit) there was an implied warranty that the cement was reasonably safe for the purpose of laying a concrete floor . . .

(For the purpose of a nonsuit) there can be no doubt that the evidence shows that the cement caused the burns . . .

Thus, (for the purpose of defeating a nonsuit), there was ample evidence for the breach of the warranty of fitness.

Furthermore, the decision of the Court of Appeals was subsequently reversed by the Supreme Court of California, 293 P 2d, at page 26, the court holding that the nonsuit was properly granted by the trial court.

I trust that you will run an article on the final outcome of this case to advise your readers that, in the final analysis, the California court held that a ready-mix operator was not liable for burns experienced by a man in leveling off a freshly poured concrete floor with his knees and legs in contact with the wet material for five hours.

—J. F. M.

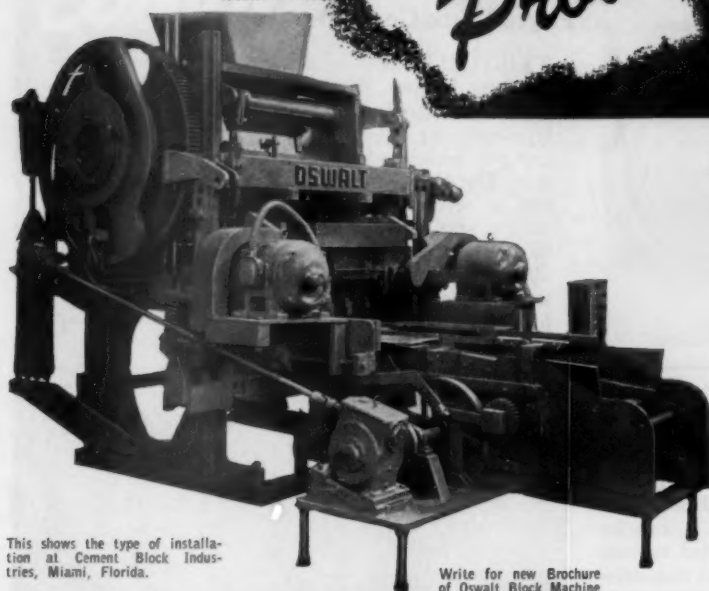
### Prestressed Bridge To Save 20 Per Cent

The City of Philadelphia has recommended that contracts be awarded for a new prestressed concrete bridge to be known as the Gorgas Lane Bridge. With an eye toward the very successful Walnut Lane job and the increased acceptance and use of prestressed concrete design, the City of Philadelphia elected to provide for alternates in its contract specifications for the Gorgas Lane Bridge so that contractors could substitute an alternate design provided an equivalent structure was furnished. With the use of a prestressed concrete design a 20 per cent cost saving is expected to be realized over steel design.

Model H No.55

*Proven*

**MORE PROFITABLE  
IN PRODUCTION**



This shows the type of installation at Cement Block Industries, Miami, Florida.

Write for new Brochure of Oswalt Block Machine

**... the NEW OSWALT  
BLOCK MACHINE**

"It's way out in front," according to actual field reports from recent installations. New high records in production and consistently low costs without sacrifice of quality . . . are the result of the Oswalt features all combined in this modern block machine.

**Improved Vibration and Production Speed-up**

**Shock-Free Ejector and Front-end Pallet Feeder**

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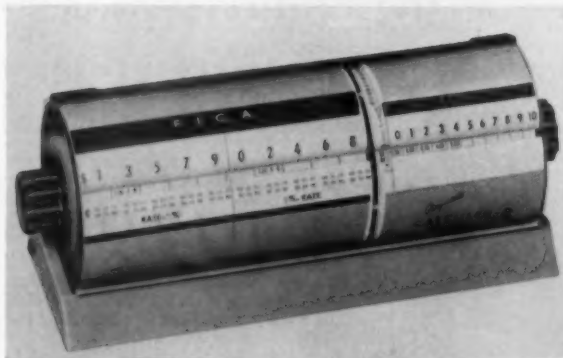
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PICK MANUFACTURING CO.  
WEST BEND, WISCONSIN

INSTANTANEOUS  
HOT WATER HEATERS

## EQUIPMENT & MATERIALS



### Payroll Tax Computer

**P**ICTURED here is a simplified payroll tax computer for fast, accurate calculations of F.I.C.A. and Federal Withholding Tax deductions. The simple drum-type computer figures Federal payroll tax deductions for any pay period, wage payment and number of dependents. The Calculus-D is available with a choice of any one of several drum-charts — for daily, weekly, bi-weekly, semi-monthly or monthly payrolls. Only 9 inches long and 4 inches high, the reading window is adjustable to the eye level at which the operator wishes to work. *Ayres Corporation*, Box 1081, Wilmington, California.

### Block Facing

**A** NEW facing for concrete block, called Vitricon, is sprayed on the block face, the cold-glazed cement mixture becoming an integral part of the block without bonding, baking, or pressure casting. It can be either factory-applied to block, or site-applied to wall by skilled applicators. Vitricon's physical properties are approximately equal to high-strength cement; it is hard and glossy-surfaced and impervious to most chemicals. Color combinations are limitless. Block manufacturers are currently being franchised to produce factory-glazed Vitricon surfaced block. *Vitricon, Inc.*, Long Island City, New York.

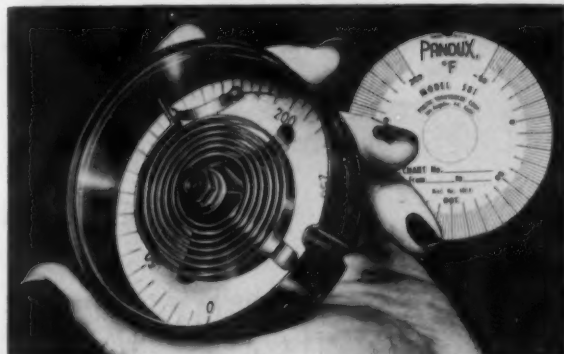


### Mobile Radiophone

**A** MOBILE two-way radio rated at 100 watts transmitter power output on any channel in the 25-54 megacycle frequency band has been announced. The unit incorporates a dynamotor-vibrator power supply which, at a power intake equivalent to conventional 60-watt mobile radios, provides full rated transmitter output. The transmitter is capable of up to 4-channel operation and models are available for both standard and split channel operation. *Motorola Communications and Electronics, Inc.*, 4501 W. Augusta Blvd., Chicago 51, Illinois.

### Recording Thermometer

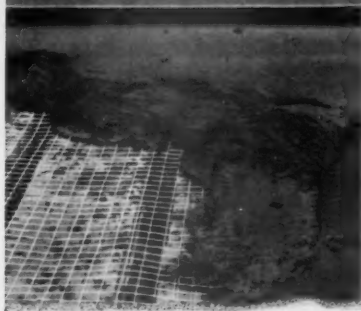
**T**HIS new recording maximum-minimum thermometer measures the ambient temperature and records both the lowest and the highest values over any given period of time. It features a replaceable paper chart on which a permanent record of the temperature excursion is recorded. It comes in two ranges; minus 50 to 250 degrees F or minus 50 to 100 degrees C. *The Pacific Transducer Corporation*, 11836 West Pico Boulevard, Los Angeles 64, California.





# Elastizell®

... the best way  
to make a light weight  
structural concrete



Elastizell-type light weight insulating concrete is here used as an integral pour for both beam and topping in a soffit tile concrete masonry roof. This roof is over steam curing kilns in a concrete block plant.

#### ADVANTAGES:

- less heat loss through roof, thus reduced block curing cost
- less moisture penetration, thus longer roof life
- greatly reduced initial kiln installation cost, due to far less complex roof construction
- uniform flow around steel, without vibration, for continuous bond
- reduced maintenance cost
- reduced dead load

AMONG OTHER USES OF ELASTIZELL-TYPE CONCRETE: dry, self-insulating slab-on-grade ... light weight, easy-to-handle floor fills in multi-storied construction ... light weight structural members ... insulation for underground pipe lines ... precast slabs and panels.



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or phone...

ELASTIZELL CORPORATION OF AMERICA  
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PHONE 1080

## NEW LITERATURE

**MOISTURE-PROOFING**—The characteristics and applications of Losorb, an additive for moisture-proofing concrete and cement materials, is described in a new bulletin page. *Pennsylvania Industrial Chemical Corporation*, Clairton, Pennsylvania.

**REINFORCING**—A 4-page brochure entitled "Use Wal-Lok, It Bonds Better" describes Wal-Lok for better and stronger walls. *Adrian Peerless, Inc.*, Adrian, Michigan.

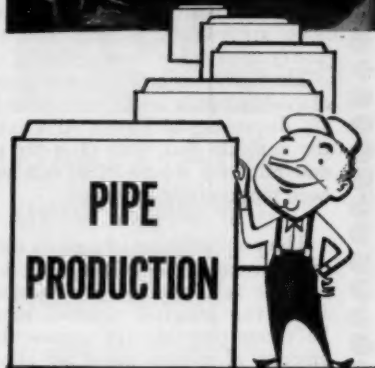
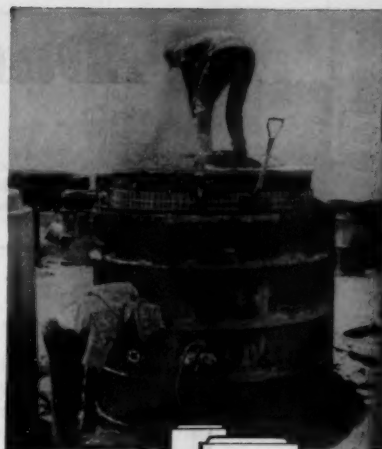
**FORMS**—A catalog outlines the time and labor saving applications, uses and features of Atlas Compo forms for concrete constructions. *Irvington Form and Tank Corporation*, 20 Vesey Street, New York, New York.

**V-BELTS**—V-Belt Trouble Savers No. 2 and No. 3, part of a series of 5 self-mailers, are intended to help users of V-belt drives diagnose many of the common causes of trouble in their drives. Mailer No. 2 explores the subject of V-belt drives using the Worthington QD Sheave and points out how to select proper drives; including rules on how to keep them in tip-top shape; adjust belts; and check motor and driven shaft for alignment. Mailer No. 3 illustrates symptoms of V-belt failure and gives diagnosis and cures for all kinds of V-belt troubles. Also available is Mailer No 1 which tells how to keep V-belt drives delivering maximum rpm. *Worthington Corporation*, Advertising & Sales Promotion Department, Harrison, New Jersey.

**FORK LIFTS**—A clearly illustrated brochure contains information on performance, uses and other data on some of the leading make fork lifts. *Memphis Equipment Company*, 766 S. Third Street, Memphis, Tennessee.

**SYNTRON CATALOG**—A condensed catalog, No. 564, contains 50 pages of technical data, brief description and photographs of vibratory materials handling equipment. *Syntron Company*, 324 Lexington Avenue, Homer City, Pennsylvania.

**BATTER BLOCK**—A 4-page brochure explains fully the story of a new way of making batter block for use in the construction of catch basins and manholes. *Besser Company*, Alpena, Michigan.



## ZOOMS

When you put Cleveland form vibrators on the job.

- adjustable vibration force
- quick-connect portable mounting brackets
- easy to maintain, only one moving part
- wide range of sizes, air or electric

Write today for a complete catalog and price list.

Air or Electric

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2708 Clinton Ave. • Cleveland 13, Ohio

# Darex Diary



No. 12 of a series  
by Henry L. Kennedy  
Member, American Concrete Institute  
Manager, Construction Products  
Dewey & Almy Chemical Company  
Cambridge, Mass.

- \*\*\* Proportioning of Air-Entrained Concrete
- \*\*\* Dispensing DAREX AEA
- \*\*\* Measuring Air Content

ALTHOUGH I have touched on them briefly in previous issues of the DAREX Diary, I believe that the three features I want to discuss in this issue are sufficiently important to justify mentioning them again.

These features are: (1) adjustment of a concrete mix for air entrainment, (2) dispensing of DAREX AEA into the concrete mix, and (3) tests to determine the volume of air that has been purposefully entrained.

The proportioning of a given concrete mixture to allow for air entrainment is relatively simple. In most cases, two principal elements must be taken care of: (1) reduce the amount of mixing water per cubic yard of concrete to compensate for the increased consistency that the entrained air causes, and (2) reduce the amount of sand and/or coarse aggregate in the concrete to compensate for the bulking effect of the air that is entrained.

In this approach the cement factor should remain the same in the air-entrained mix as it was in the plain mix and generally the slump must also be the same. Until the proportions can be accurately computed, a good rule of thumb is to reduce the water content by about 30 pounds (3½ gallons) per cubic yard and to reduce the sand content by about 100 pounds per cubic yard. This will adjust the cement content for about 4% air.

Since an air entraining agent is a cost item, its introduction into the concrete mix merits considerable care and precision. Inaccurate dispensing can result in too much or too little air. Remember that under ordinary circumstances we are adding only a small amount of fluid per bag of

cement. To assure proper control, I certainly recommend proper dispensing apparatus.

For stationary plants and paving mixers several dependable dispensers are available. They are manufactured by our own DAREX AEA distributors: J-W Materials, Inc. of Napoleon, Ohio; E. W. Zimmerman of Chicago, Illinois; and the C. R. Watts Company of Seattle, Washington.

The control testing of air-entrained concrete differs from plain concrete in only one respect. That is, the new ingredient, air, should be controlled with the same philosophy we apply to such properties as slump, workability, unit weight, etc. Simple tests can determine precisely the amount of air in the concrete. The most popular technique today is the pressure method—by compressing the entrained air, the only compressible ingredient in the concrete. This test takes only a few minutes and is well worth the time to assure full benefits from air entrainment. Two very dependable apparatus for this purpose are the Acme Air Meter (E. W. Zimmerman) and the Press-Ur-Meter (Charles R. Watts Co.).

If lightweight concrete is involved, particularly with porous aggregate it is well to use an apparatus known as the Roll-A-Meter (Charles R. Watts Co.), which determines the air content by displacement of the air with water instead of by pressure.

Lacking an air meter, an alternate means to determine the air content is the ASTM gravimetric method C-138-44. The test involves a comparison of the unit weight of the air-entrained concrete with the unit weight of the same concrete air-free.

**DA**  
**DEWEY AND ALMY**  
CHEMICAL COMPANY  
DIVISION OF W. R. GRACE & CO.

Cambridge 40, Massachusetts; San Leandro, California; Montreal 32, Canada

## BOOK REVIEWS

**THE ULTIMATE LOAD THEORY APPLIED TO THE DESIGN OF REINFORCED AND PRESTRESSED CONCRETE FRAMES.** By Professor A. L. L. Baker, D. Sc., M.I.C.E., Concrete Publications Limited, 14 Dartmouth Street, Westminster, S.W. 1, London, England, \$4.00.

This book is probably the first work published in the English language on design procedure according to the ultimate-load method. It discusses the probability of failure and its effects, and describes how a suitable factor of safety can be decided upon. The conception of plastic hinges, which permit full use to be made of the economies that are possible by the ultimate-load method of design, is fully described.

**INDUSTRIAL RESEARCH LABORATORIES OF THE UNITED STATES.** National Academy of Sciences, National Research Council, 2101 Constitution Avenue, Washington 25, D.C., 560 pages, \$10.00.

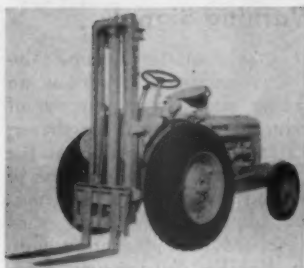
This book includes information on 4,834 laboratories of 4,060 companies gathered during the first half of 1955. The entry for each organization reported shows the names and locations of its laboratories, its principal research executives, the number of professional, technical, and administrative employees in each laboratory as well as the kinds of research in which they are engaged. In addition, as an aid in finding individual laboratories or subsidiaries of large companies, an effort has been made to report the entire structure of an organization under its parent company's name with extensive cross-references to component units, subsidiaries, and laboratories.

**FIVE-MINUTE SAFETY TALKS FOR FOREMEN.** By Roland Blake, National Safety Council, 425 N. Michigan Avenue, Chicago 11, Illinois, 104 pages, \$3.40.

Especially useful to foremen and supervisors, these 52 five-minute talks provide ready-to-use outline and text for informal safety pep talks or scheduled training sessions. The talks include material on general topics such as attitudes, lifting and first aid, as well as information on specific problems including the use of powder actuated hand tools, masonry chipping, caustic chemicals, explosive dusts, flammable liquids, drills, saws and electricity.

August, 1956—CONCRETE

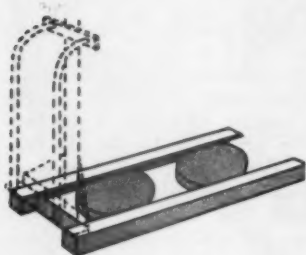
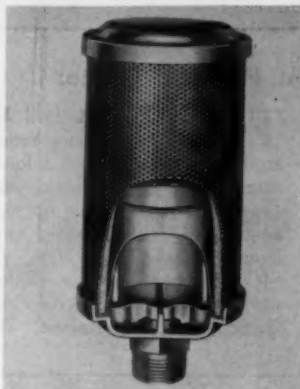
## Fork Lift Truck



WITH a lifting capacity of 4000 pounds, this Super 55 is offered with 8- and 10-foot tilting mast to accommodate different attachments including standard forks in four lengths, concrete block fork,  $\frac{1}{2}$ -yard hydraulic scoop bucket and dozer blade. Six forward speeds provide a range of from  $1\frac{1}{2}$  to  $14\frac{1}{2}$  mph. The unit is available with either a gasoline or diesel engine. *Oliver Corporation*, 400 W. Madison Street, Chicago, Illinois.

## Air Exhaust Muffler

THE Atomuffler, a pneumatic muffler for air-operated equipment, features a new 4-port deflector which, combined with an internal acoustical resonator, gives uniform air dispersement with more effective impingement, resulting in better noise cancellation and improved air flow. The unit is available in sizes from  $\frac{1}{8}$  inch to 2 inches N.P.T. *Allied Witan Company, Inc.*, P.O. Box 2770, Dept. 1-5, Cleveland, Ohio.

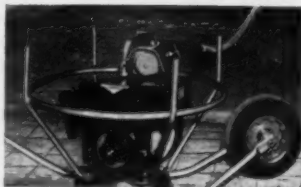


## Magnetic Off-Bearer

THE manufacturer of this new-design magnetic off-bearer guarantees that it has sufficient power to make the dirtiest pallet jump from the curing rack. The open-type construction allows particles of concrete to drop through the off-bearer, instead of accumulating on the top surface. *Bergen Machine & Tool Company*, Franklin Avenue, Nutley 10, New Jersey.

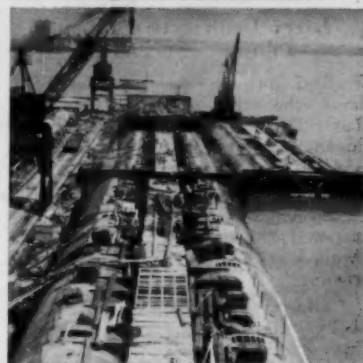
## Lightweight Vibrator

THIS new vibrator, model BGW, has a 2-hp., 4-cycle air-cooled gasoline engine and runs at speeds of from 6,000 to 9,300 vibrations per minute. Its newly designed light-weight  $1\frac{3}{8}$ -inch vibrator head weighs only 5 pounds 7 ounces. The head has a hardened steel removable tip, which means the tip can be replaced after long wear without having to replace the complete head. The  $\frac{3}{8}$ -inch shafting is extremely flexible and is available in lengths of 7, 14 or 21 feet. For additional information write *Stow Manufacturing Company*, 443 State Street, Binghamton, New York.



# Darex

products at work



## DAREX AEA

goes underwater to untangle traffic knots

Problem: how to untangle traffic knots in crowded Baltimore and hustle the heavy through-traffic across town?

Engineers saw a dramatic solution. They're slicing straight across, deep under the Patapsco River, with twin tubes, each 32 feet in diameter and 6300 feet long. A project of the Maryland State Roads Commission, the tunnel will be largest of its type in the world; only the most durable materials will serve.

Contractors Merritt-Chapman & Scott are using DAREX AEA as the air-entraining agent, adding it to the more than 250,000 cubic yards of concrete that help strengthen the tube's steel shell. Within the tube a two-foot layer of DAREX air-entrained concrete adds permanent strength. Outside, a two and one-half-inch concrete coating protects the steel from the river waters.

Beyond improving the finished quality of the concrete, DAREX AEA is helping in easier placement and faster finishing on this \$30,000,000 project.

Write today for more information about DAREX AEA.

### Other Dewey and Almy Products for the Concrete Industry

**DARACONE**—silicone-type water repellent

**DARALITE**—air-entraining agent for use with lightweight aggregates

**DARASEAL**—premium quality concrete curing compound

**GRINDING AIDS**—for use in the manufacture of cement



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CHEMICAL COMPANY  
DIVISION OF W. R. GRACE & CO.



Cambridge 40, Massachusetts  
San Leandro, California  
Montreal 32, Canada



# Dodson's Digest



## Larry Dean gets a tip on summer concreting

Walked into the local beanery for lunch the other day, and I spotted Larry Dean wildly waving me over to his table. Larry is a paving contractor, and he was working on a highway job nearby.

"So you're still trying to lick the national highway program single-handed!" I greeted him. "How's it coming?"

"Lousy, thank you," Larry replied sadly. "It's this crazy weather we're having this summer . . . one day it's cold, and the next day the thermometer bursts. On top of that, it seems like it's raining half the time. And you know how concrete acts up in weather like that!"

"You sound like a man who's not using Calcium Chloride in his mix," I observed. "Am I right?"

"Well, yes," he admitted, "but it's not really cold enough . . ."

"Not cold enough!" I broke in. "Did you know that, even at 70 degrees, Calcium Chloride increases the strength of concrete 145 per cent in 24 hours? What's more, you'll get better workability at any temperature. Besides..."

"There's only one thing wrong," Larry protested, still not convinced. "I figured my bid pretty close on this job, and I didn't allow any money for Calcium Chloride."

"Don't let that stop you," I assured him. "After you see what Calcium Chloride will save you in time and labor costs, you'll be money ahead."

Larry gulped down his coffee and started for the door. "So long, Dod!" he yelled over his shoulder. "Got to hurry if I'm going to try this Calcium Chloride idea this afternoon."

A few minutes later, our waitress came over. "Here's the check, Mr. Dodson," she said. "On his way out, Mr. Dean told me I should give it to you, because you were giving out good tips today."

— L. D. DODSON

**P.S.**—Wyandotte Calcium Chloride is now available in convenient, economical pellet form. You can find out all about it in our new booklet, "Pellets . . . a new form of Wyandotte Calcium Chloride." Write me for your free copy. Wyandotte Chemicals Corporation, Wyandotte, Michigan. Offices in principal cities.

**Wyandotte**

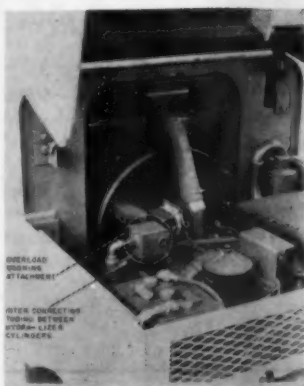
**CHEMICALS**

MICHIGAN ALKALI DIVISION

HEADQUARTERS FOR CALCIUM CHLORIDE



## EQUIPMENT & MATERIALS

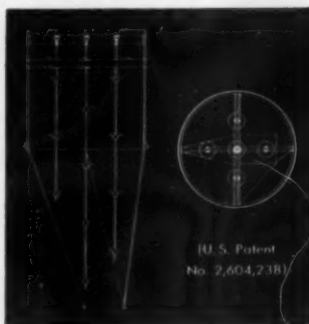
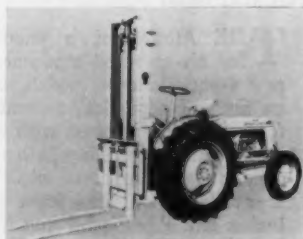


## Overload Warning Signal

**T**HE latest attachment for Lamson Mobilift sit-down industrial trucks is an overload warning signal. The purpose of the new attachment is to warn the driver, either by a signal light or bell, that the load he has just picked up is in excess of the safe operating capacity of his truck. The signal will also warn the driver when his load has shifted to a dangerous position. *Lamson Mobilift Corporation, Syracuse 1, New York.*

## All-Purpose Tractor

**T**HE M-H-F Work Bull Model 202 all-purpose tractor can mount any of 20 attachments. It features a low silhouette for exceptional over-the-hood visibility and is capable of road speeds up to 15 mph. Recommended bucket loader capacities range from 9 to 11 cubic feet, while the fork lift attachment has a capacity of 2,000 pounds. *Massey-Harris-Ferguson, Inc., Quality Avenue, Racine, Wisconsin.*

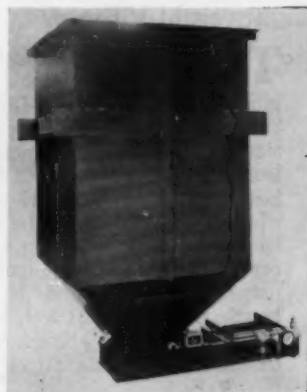


## Suspension Discs

**T**HE diagram shows how anti-bridging suspension discs are arranged in Day bolted bins to eliminate product bridging. The bin hopper design also assists in the free flow of product. One side of the hopper is nearly perpendicular to the discharge while the other plane is a cone, pitched to best accommodate the material being handled. *The Day Company, 810 Third Avenue NE., Minneapolis 13, Minnesota.*

## Hopper Scale

**C**UMULATIVE weighing from a series of feeders or from a single hopper is possible with this automatic suspension-type hopper scale. It can be had with air-operated discharge gates or a manually-operated handwheel. The scale is available in seven models, ranging in size from 33 to 200 cubic feet, with capacities up to 6000 pounds. *Richardson Scale Company, Van Houten Avenue, Clifton, New Jersey.*





# Chip Away

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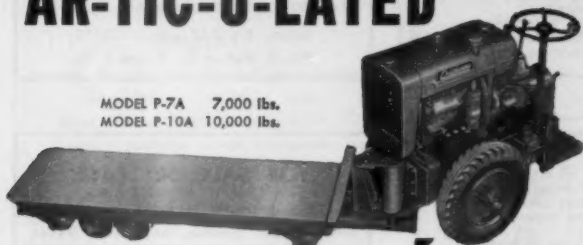
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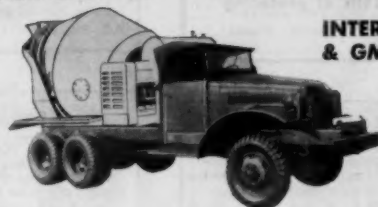
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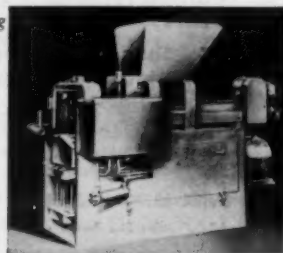
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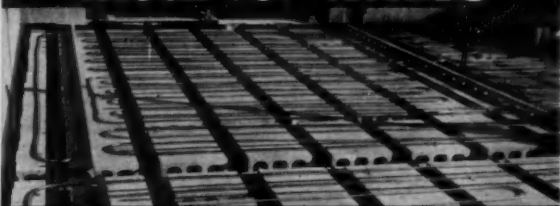
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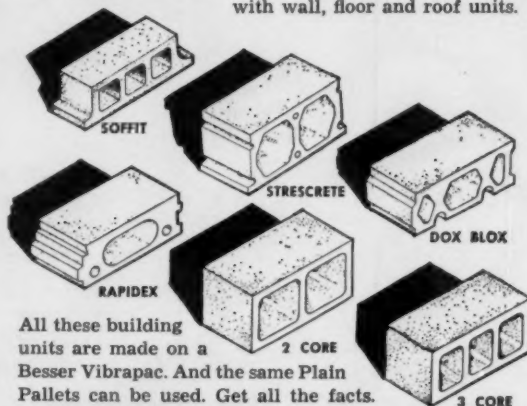


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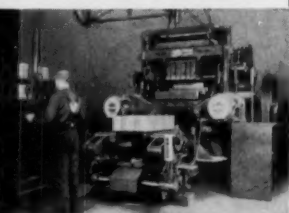


All these building units are made on a Besser Vibrapac. And the same Plain Pallets can be used. Get all the facts.

Write for Bulletin

## BESSER COMPANY

ALPENA, MICHIGAN, U. S. A.  
Complete Equipment for  
Concrete Block Plants





## THE EDITOR'S PAGE

WILLIAM M. AVERY

### What's In A Name?

WE used to know a whimsical character in the business world who claimed that all he asked for in any competitive situation was an unfair advantage. We were reminded of him the other day when an acquaintance in the concrete products field told us, with an air of obvious triumph, that he had managed to have his material written by name brand into an important specification.

At best business principles are tenuous things, and we know of few areas of human activity that lend themselves so well to lofty statements of intention in preparation for less than lofty actions. But if we were in the concrete products business, and were offered the particular kind of unfair advantage that goes along with a brand-name specification, we think we'd pause and reflect a moment before embracing the idea.

We believe there is no significant difference between the average brand-name specification and any of the restrictive covenants that so seriously mar both the business and the social horizons in the United States today. The brand-name specification requires only that a product be manufactured on the right side of the tracks to be accepted; the restrictive covenant sets the same requirement for human beings. Neither concerns itself very much with questions of performance.

It is sometimes argued, in defense of this approach to specification writing, that of course the matter of performance is taken into consideration at the time the brand is selected. But materials have this important characteristic in common with human beings: they inevitably change over a period of time in response to forces which have nothing whatever to do with the names by which they are called.

So we believe, or perhaps we just hope, that if somebody offered to write a material we manufactured into an inflexible specification, we'd quietly decline—on the sufficient grounds that in the long run it would be better for us, as well as for everyone else concerned, to meet the much tougher demands of a performance specification. We'd like to think that we would also distrust the whole idea for the same reason that we distrust any sort of restrictive covenant: because the next one that is written might declare us out of bounds for some reason.

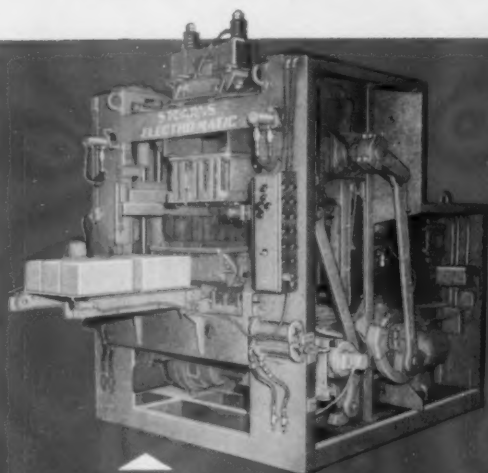


MR. BLOCK PLANT OWNER...

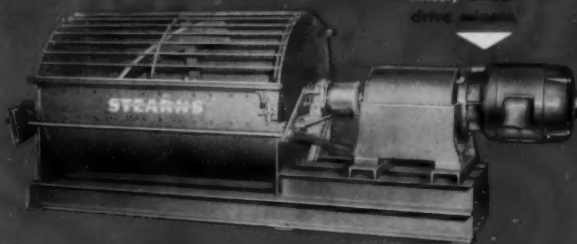
see

# STEARNS

for complete concrete products plant equipment



The unequalled,  
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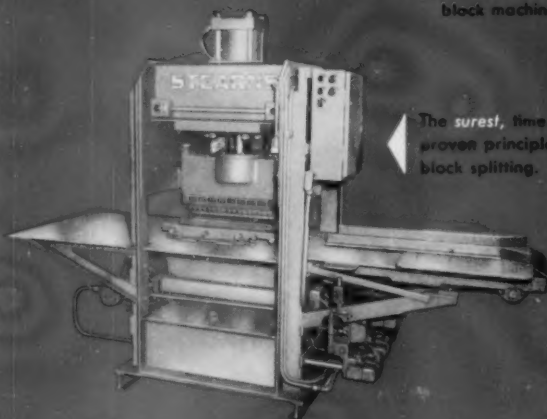


The finest, direct-  
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The versatile, Series 50®  
block machine.



The surest, time-  
proven principle of  
block splitting.



If you are interested in the finest, most complete line of concrete products plant equipment... look to STEARNS. Engineered to give you MORE and BETTER BLOCKS per dollar, Stearns equipment means longer machine life... less down time... greater PROFITS for you. Check and compare... ASK ANY OWNER... and you'll agree that STEARNS offers more! Write today... for illustrated folders.



► SKILOADERS  
► TURNTABLES  
► PALLET RETURNS  
► OFF-BEARERS

\* Makes up to full 12" high units.

## STEARNS

MANUFACTURING COMPANY, INC.

ADRIAN, MICHIGAN • U.S.A.

now **BESSER** gives you

**UPT\***



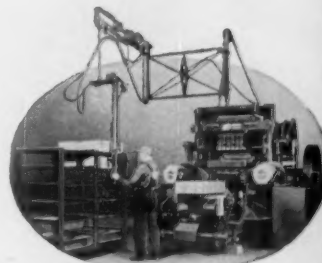
**PLAIN END OR CORNER BLOCK**  
With UPT, the core plate mark is now completely eliminated on the end of block. Perfects corners of buildings and ends of walls.

## FIRST IN PRODUCING A BUILDING BLOCK WITH **UNI-PRESSED TOP\***

Again Besser forges ahead with another FIRST in the Concrete Block Industry. This time it's U.P.T. . . . a block with *Uni-Pressed Top* . . . entire top surface made smooth. Note these new U.P.T. features:

- ▶ Block has no machine marks, whatsoever.
- ▶ All six sides are now smooth.
- ▶ Concrete under core bar—packed the same density as rest of block.
- ▶ Higher division plate required, provides means for packing block edges better.
- ▶ Materially reduces grinding on floor filler units — as block is smooth.
- ▶ Makes perfect job of pressure grouting floor and roof planks — no weak points in center of block.

U.P.T. attachments are available in 3 core, 2 core and floor & roof filler block. Get all the facts from your Besser representative, or write:



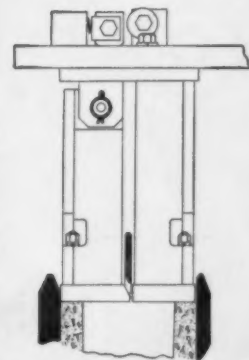
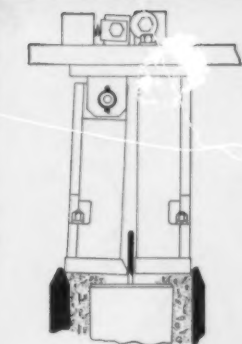
**BESSER VIBRAPAC** — the fully automatic concrete block machine. Produces high quality masonry units, of any desired texture and density, at the lowest possible cost.

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*World's Leading Manufacturer of Concrete Block Machinery*

**ALPENA, MICHIGAN, U.S.A.**



Upper drawing shows swinging stripper shoe contacting thick beveled division plate, ready to move to right — to contact stationary stripper shoe — to produce a block with U.P.T.

Lower drawing shows swinging stripper shoe — after clearing higher core plate — and contacting stationary shoe — ready to strip U.P.T. block.